



photograph © Ernest Tupper

Looking down from the house at some of the earliest plantings bordering the lake at Hackfalls, Bob Berry's arboretum which he has been creating since the 1950s.

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Hackfalls Arboretum

In June 2016 Bob Berry celebrated his 100th birthday in Gisborne surrounded by family and many of his dendrology friends. To mark the occasion the Eastwoodhill National Arboretum presented him with a Wollemi-pine, *Wollemia nobilis*; a species until then not available in New Zealand. **ALAN JELLYMAN** writes about the arboretum at Hackfalls, the life work of this remarkable man.

Bob's lifetime has been dedicated to his family property Hackfalls Station at the settlement of Tiniroto where over the past 65 years he has established Hackfalls Arboretum. The arboretum is situated at an elevation of 270 m above sea level and receives 1,600 mm rainfall annually. The soils are derived from Taupo Ash overlaid on clay mudstones. Today the arboretum spreads over some 50 hectares of the Hackfalls Station and is home to more than 3,000 trees; notably the largest collection of oak trees in New Zealand.

The Berry family acquired the property in 1916. His father gradually cleared the land for farming through continuous manual labour. Schooled partly at home on the station, his interest in horticulture was encouraged by his mother and uncle who were keen on plants, but tree planting over the farm was limited and a lower priority for his father, so Bob could only plant the

odd tree. The earliest formal tree planting was that of an oak, *Quercus robur*, distributed by the Women's Institute to mark the Jubilee of King George V.

It was on a visit to Eastwoodhill Arboretum in 1953 that a meeting with the owner, William Douglas Cook, sparked the friendship that really launched Bob's tree planting campaign and that Eastwoodhill association has continued ever since. Douglas Cook had found a man who shared his passion for trees. He generously offered free access to seed from his trees which included a major collection of oaks; many imported from Hillier's Nurseries in Great Britain.

As you arrive at Hackfalls you drive around one of the lakes and up to the site of the farm's main residence. From this elevated site you look down across the lake to some of the early plantings designed to provide a display of reflected autumnal colour. Not surprisingly plantings of *Nyssa sylvatica*, dating back to 1956, and *N. sinensis* (1978), take pride of place.

Oaks and maples were favoured among collections and while not many maple species were available early in the planting programme, the resource of oaks at Eastwoodhill provided a starting point.

The planting strategy was simple. As a working farm it was not possible to fence off areas for planting but rather individual plants were given protection and spaced widely so that the stock could continue to graze. Seedlings were always planted out as small plants. Bob reasoned that tap roots could develop early as seedlings in nature did needing no watering. Hickories, notably difficult to establish because of their long tap root, were lifted carefully by digging down deep beside the plant to get as much of the tap root as possible. An equally deep hole was made for planting. This strategy was applied throughout the years of planting.

Farm Forestry Association membership gave the opportunity to see farm forestry practice in other areas of New Zealand. When the poplar rust emerged late in the 1950s there was a rush to find alternatives. European hybrids were first introduced in 1946 along with *Populus yunnanensis* and *Populus trichocarpa*. A research station was established at Akoutere near Palmerston North specifically to breed rust-resistant cultivars. As each of these cultivars became available they were collected and added to the Hackfalls collection. Today this is probably the most complete collection of the hybrid poplar gene pool in New Zealand.

Douglas Cook imported many new species of trees and shrubs from Britain and the USA and was generous in sharing any surplus seed with like-minded colleagues. The growing collection at Hackfalls was one beneficiary. In addition Gisborne was the base of Peter B. Dow Seed Company whose catalogues of the 1960s featured a wide variety of tree species, many of interest for enlarging the Hackfalls collection. Bob quickly realized how well oaks grew in the district and collected more acorns from commercial seed suppliers and other sites.

In 1977 the International Dendrology Society toured New Zealand and



Pterocarya stenoptera, showing a typically multi-stemmed habit, originates from southeast China.

visited both Hackfalls and Eastwoodhill. The tour was organized by Lady Anne Palmer and it took very little persuasion for Bob to join the Society. In later years he would marry Lady Anne, who became a staunch advocate for the merits of the Hackfalls collection and this modest retiring man.

On a dendrology tour to Japan and Korea in 1980 contact was made with Ferris Miller of the Chollipo Arboretum. Records show just how many new

trees seeds were received via this source. This relationship gave access to many species of maple and collections made in Taiwan. *Paulownia kawakamii* was first introduced into New Zealand from this source along with *Photinia davidiana*. Other tours gave opportunities to see natural forests of Mexico, Northern Ireland, and the Eastern United States .

“The American Oaks” by Trelease indicated that Mexico was home to the largest range of oak species in the world; some 200 species. The only Mexican oaks known then in New Zealand were a group of *Quercus rugosa* established at McLarens Falls near Tauranga. Seeing the success of this group made Bob realize that these oaks would survive at Hackfalls and he planted his first species in 1975.

The chance to join the Dendrology Society tour to Mexico arose in October 1981 and Bob joined the tour. Four species of oak were collected and were planted immediately on return to New Zealand. Some had germinated by January 1982 and specimens flourished at Hackfalls in the well-drained volcanic soils. This led to a series of return trips where a driver was engaged to tour the mountain sides. Most collections were obtained from road sides where oaks were in second growth after earlier clearances.

In 1982 Bob returned to Mexico and embarked on a two week tour in a hired taxi travelling hundreds of miles. He collected some 800 acorns. They were inspected under quarantine regulations and planted under MAF supervision. Although always armed with permits before leaving New Zealand and furnished with Mexican Health Certificates, acorns were presented for fumigation on arrival at Auckland. Many did not survive the process. Bio-security regulations today prohibit the importation of further oak species.

A large collection of some 50 species has now been established. This collection is now regarded as the largest in cultivation in the Southern Hemisphere. Allen Coombes, a British expert on the subject, evaluated the collection in 2004 and confirmed the identity of species and a range of natural hybrids. He commented, ‘I was impressed by the range of species Bob was growing there and by the size and growth rate of the trees. Just considering the oaks this is a collection of international significance and many of those I have found I have not seen better plants in gardens since. Bob has the insight to start collecting the Mexican oaks long before most. Many of his plants are now represented as specimens in the Harold Hillier Herbarium.’

The largest of all acorns belongs to one of the tallest Mexican species, the 30 metre high *Quercus insignis*. During the NZIDS visit to Hackfalls in 2016 Dan Haliday of Eastwoodhill spotted the first acorn on this tree. There was much excitement and when the acorn matured it was planted at Eastwoodhill where Dan reports that the tree has germinated and is growing vigorously. One can understand why *Quercus insignis* ranks as Bob’s favourite tree.

Today these oak trees make handsome specimens in the farm landscape of Hackfalls along with the remainder of the collection of maples and many



Quercus insignis, Bob's favourite tree, produced acorns for the first time just before his 100th birthday.

other rare trees. There is a special case to ensure their long term preservation and conservation of this unique gene pool of oaks for New Zealand. With the assistance of a grant from the New Zealand section of the Society plans are in place to propagate a number of the rarer species represented by only one or two accessions. This will be done by applying an aerial layering technique and



Euscaphis japonica, a small tree or shrub, is a rare species from Korea, China and Japan.

partnering with Eastwoodhill Arboretum to grow on and establish duplicate collections.

Over the years of development at Hackfalls Bob Berry maintained meticulous records starting with a handwritten list in 1963. Catalogues have been subsequently maintained and updated from the first type-written records in 1972 followed by a succession of word processor generated catalogues from 1993 onwards. In 2008, at the age of 92, Berry started preparations for converting his catalogue to the FileMaker Pro system which today includes photographs of many key species along with data on source, year of planting, and other relevant information.

Today, at the age of 100, he continues to update and enhance his catalogue and record of the Hackfalls collection. The current catalogue is accessible on the Hackfalls website and a full copy complete with colour images was published in 2016.

The Hackfalls collection is indeed very diverse as this approximate list of key genera shows: *Acer*, 160, *Alnus*, 80, *Betula*, 90, *Eucalyptus*, 90, *Ilex* 60, *Magnolia* 70, *Malus*, 50, *Populus*, 220, *Prunus*, 80, *Quercus*, 160, *Salix*, 70, and *Sorbus*, 70 accessions.

Bob's cataloguing efforts were not confined to the Hackfalls collection because he also made a major contribution to Eastwoodhill Arboretum after the death of Douglas Cook in 1964. Concerned at the lack of a proper catalogue of



A beautiful specimen of *Betula papyrifera* var. *commutata* growing at Hackfalls.

the Eastwoodhill trees, Bob started a voluntary project to map and record the collection. He devoted one day a week at the Arboretum amassing details of the trees there. Where labels were missing he would research Cook's written records. By February 1972 the first ring-binder cyclostyled catalogue was completed. Further updates were made until the publication of Eastwoodhill Arboretum Catalogue of Trees, Shrubs and Climbers in 1982.



Dan Haliday, the curator of Eastwoodhill Arboretum, discussing plants with Bob Berry during the IDS visit to Hackfalls in April 2016. Diane Playle, Bob's niece is driving the buggy.

In addition to receiving the Veitch Memorial Gold Medal, awarded in 2015 by the Royal Horticultural Society in recognition for his services to the practice and science of horticulture, Bob's work has been recognized by the IDS Plaque awarded in 1998, the Associate of Honour of the Royal New Zealand Institute of Horticulture in 1991, the Eastwoodhill Centennial Award in 2010 and the Lifetime Service Award of the International Oak Society in 2012.

The Hackfalls Charitable Trust is managed by Bob's niece, Diane Playle, who coordinates operations on both the Arboretum and the station farm. The importance of this collection as a gene pool of trees that could enrich New Zealand landscapes and provide new options for rural land management is, regrettably, not yet fully appreciated. It is the writer's view that the Hackfalls Arboretum is of national importance and assistance is required from influential agencies in the country to ensure that resources are made available for the good of our national landscapes.

Although now resident in retirement village in Gisborne Bob Berry as he approaches the age of 101 continues to maintain the records of his Hackfalls collection. It was fitting that *Wollemia nobilis* was presented to Bob marking his centennial year with such a prestigious addition to his collection. Having toured the Arboretum with Bob in 2013 what stood out was his commentary on each of the important trees along with their stories. With 3,000 trees recorded representing some 2,700 species; Hackfalls Arboretum is testimony to the achievement of a remarkable man.