

BEFORE THE CANTERBURY REGIONAL COUNCIL

IN THE MATTER OF the Resource Management Act 1991

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IN THE MATTER OF Water permit applications by Rosehip Orchards New Zealand Limited and High Country Rosehip Orchards Limited

**STATEMENT OF EVIDENCE OF JOHN CHARLES LYONS
DATED 11 NOVEMBER 2009**

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INTRODUCTION

- 1 My name is John Charles Lyons. I am a Director of both Rosehip Orchards NZ Limited (“Rosehip Orchards”) and High Country Rosehip Orchards Ltd (“High Country”).
- 2 High Country Rosehip Orchards Ltd owns Omahau Orchard Estate situated in the Mackenzie Basin near Twizel. The property is now freehold following the completion of Tenure Review in late 2007 and now comprises a total land area of 2105.41ha. The property is bisected by the Twizel River.
- 3 Rosehip Orchards NZ Limited has a long standing interest in part of the property through an agreement to purchase the land east of the Twizel River comprising a total land area of 973.479ha. The subdivision of this block is currently in progress with the Mackenzie District Council. For the past seven years Rosehip Orchards has given effect to a resource consent allowing the irrigation of 200ha of the subject land under a single centre pivot. Rosehip Orchards is now seeking consent to irrigate a further 610ha of land under centre pivot irrigation, for a range of uses as discussed later in detail as part of this application.
- 4 High Country has resource consent to subdivide from the balance of its land on the western block, a farming area of 868.11ha. It is seeking consent to irrigate 500ha under centre pivot irrigation.

ROSEHIP HISTORY

- 5 I am the sole director of High Country Rosehip Orchards Ltd. The company purchased the subject land in 1997 with the view to establishing a rosehip orchard industry in the Mackenzie Basin. A contractual agreement was entered into with Rose Products Ltd (Processor). Rose Products was the company which introduced the concept to the area and had established a rosehip processing factory at Twizel. It had purchased a specialized rosehip harvester, had further established contact with markets in Europe for the export of rosehip shells (outer flesh of the berry) and rosehip oil from New Zealand. The major food purchasing companies in Europe use the rosehip shells for uses including the manufacture of rosehip teas. Rosehip Oil is used in the cosmetic industry.
- 6 My interest in growing rosehips was stimulated after understanding the significance of the contents of the rosehip berry obtained from the Sweet Briar

plant. The Sweet Briar plant (*Rosa rubiginosa*) grows wild in the Mackenzie Basin and is generally considered by farmers as a weed.

- 7 The rosehip berry is made up of three basic elements, the outer flesh, hairs and seeds. The flesh (rosehip shells) contain the highest concentrations of Vitamin C of any fruit. It currently is used mainly in the production of rosehip tea (Herbal Tea). The seeds contain valuable oil used in the cosmetic industry (rosehip oil). In short the scope for such credentials of the rosehip berry was considered excellent for a new growth industry.
- 8 The original orchard concept involved various methods of establishing sizeable orchards on broad acre dry land areas in the Mackenzie Basin. As there were no large concentrations of Sweet Briar plants on our land for grading into crude orchard rows, as had occurred elsewhere in the basin, it was decided to establish the first orchard on the western block of our land by the transplanting of rooted plants obtained from the re-growth of previously graded land in the Omarama area. A total of 115,000 plants were pulled from the ground by a team of workers from the Twizel area and then transported to our site and planted via a locally designed automated planting machine and finally established into orchard rows 3m apart.
- 9 Eventually after significant issues around plant growth limitation, Crop & Food Research Ltd was engaged to assist in the process of establishment. Over an extended timeframe it became evident that while Sweet Briar grew relatively successfully in the Mackenzie area, it was the lack of water on the broad acre flat land that was the main limiting factor in producing successful plant growth. Studies by Crop & Food of the wild plants showed that the successful Sweet Briar plants growing in the Basin were all benefiting from access to water, through micro sources such as runoff, proximity to ground water and through unusually deep soils water holding capacity.
- 10 A similar outcome had occurred in the other formalized orchards in the Basin, resulting eventually in the closure of the processing company in Twizel.
- 11 It became clear that for a Rosehip Project to have any chance of success, irrigation was going to be a fundamental requirement. The costs required to seek water rights and establish a full scale operation utilizing irrigation, processing and marketing, required a major rethink of the potential project.
- 12 A new business plan was developed to maximize the potential ingredients of the rosehip berry after various lines of research was carried out under contract by

Crop & Food Research Ltd (“CFR”). In particular, research was undertaken to identify the potential of the antioxidant activity of the berry.

- 13 Rosehip Orchards NZ Limited was established as a result of the CFR work together with certain other information obtained offshore. I assembled a group of business investors who have taken up a majority shareholding in the Joint Venture company. I have 24.3% of the company through High Country Rosehip Orchards Ltd. Crop and Food Research Ltd (now Plant & Food Research Ltd), hold the balance 10% as a result of their particular interest in the rosehip project.
- 14 Over the following two years while resource consent was being sought for irrigation water from a well we had drilled on the land, the company commissioned various research under contract with CFR. The research dealt with issues of plant seed dormancy, plant nutrition, and plant growth. All work was carried out at Invermay Research Centre at Mosgiel. A trial irrigation block was established on site in the Mackenzie Basin to replicate plant conditions and identify issues. This facility was operated and managed by CFR’s top plant scientists.
- 15 Further research was carried out in the Crop & Food Research Centre in Palmerston North looking in particular at the antioxidant activity and its health benefits and further potential of the contents of the rosehip berry. This also included research into certain scientific claims out of South America around the scar healing qualities of rosehip oil on human skin. Chile is the major manufacturing source of both rosehip oil and rosehip shells internationally. A long term Intellectual Property agreement was then entered into between Rosehip Orchards NZ Limited and Crop & Food Research Limited.
- 16 Formal establishment of the first rosehip orchard commenced on site under the newly established 200ha centre pivot irrigation operation in 2002. The operation was directed and overseen by Crop & Food Research scientists. Due to the scale of the operation (660km of orchard rows) it had earlier been decided to plant out the orchard using rosehip seed as opposed to plants. The seed stock was procured from the wild plants within the Mackenzie Basin, then processed at Invermay utilizing acid treatments to overcome the natural dormancy of the seed, and then planted within the entire centre pivot circle in rows 3m apart.
- 17 Initial results were encouraging and the seed strike considered a success, a cover crop of Lucerne was established the following year to provide a cash flow for the project during the establishment phase. We expected to have the first commercial crop of rosehips available for harvest in year 4.

- 18 Within the first two years after planting the orchard, a series of issues saw the company having to replant the orchard with further rosehip seed. Unfortunately these issues continued to effect the establishment of the orchard over the following three years and in turn threatened to compromise the viability and future of the project. The Directors of the company eventually had to concede that the establishment of the orchard had not been successful at this time.
- 19 It is now recognized by the Directors of both companies that an entirely new concept for the establishment of the rosehip orchards would be required together with a significant new budget to take the project forward. The future of the project is now effectively in limbo while the Directors consider their options going forward.
- 20 Lucerne production has continued with very good results and favourable comments from the market place regarding the superior quality of the product for animal feed. The soils within the irrigated area are improving year by year, with the consistency of plant growth visibly improving significantly.
- 21 The Directors of Rosehip Orchards NZ Limited and High Country Rosehip Orchards Ltd are now seeking resource consent to irrigate the subject properties for a more traditional range of uses as identified in significant detail later in this application. Rosehip production remains an option for the future.

John C Lyons
11 November 2009