

12 December 2014

Agricultural Competitiveness Taskforce  
Department of the Prime Minister and Cabinet  
PO Box 6500  
Canberra ACT 2600

Letter of Support for Agricultural Competitiveness Green Paper submission: **Expanded Horticultural Production – Northern Adelaide Plains – Waste Water Reuse**

**Group Summary:**

Perfection Fresh is a partnership of two family companies, the Victor Smorgon Group and the Simonetta family, operating businesses in the agricultural sector in Australia. Perfection Fresh is a leader in growing fruit and vegetables for the Australian market and has done so for over 30 years.

Today the business of the combined group spreads Australia-wide through operating farms, strategically aligned contracted growers, joint ventures and share farmers, who are committed to growing and supplying our customers with an inspiring range of innovative, high quality fruit and vegetables.

As one of Australia's leading fresh produce businesses, Perfection Fresh supplies supermarkets, including Coles, Woolworths, Costco and Aldi, independent retailers, Food Service, QSR as well as promoting its products to an expanding number of export markets.

**History on the North Adelaide Plains:**

Perfection Fresh, through its subsidiary, D'VineRipe (DVR) has invested more than \$135,000,000 since November of 2007, in the construction and operation of 27ha of Glasshouse in Two Wells South Australia. DVR currently employs 400 people as a base and up to 500 people in the summer peak season. The Glasshouse is being further expanded to 35ha and will employ an additional 100 people.

The facility grows Tomatoes, Capsicums, and Cucumbers, using the latest Glasshouse technology to produce a high quality, consistent products 52 weeks of the year.

The concept of the business is an effective investment in climate change and its effect on weather patterns, water scarcity, and the ever growing requirement for consistent, high quality products 52 weeks per year. Furthermore, protected cropping has experienced none of the issues faced by field growers of recent years, such as drought, flood, hail and frosts, as it is a controlled environment with a continuous, contracted supply of recycled water.

A comprehensive Corporate Social Responsibility (CSR) policy underpins the objective to produce high volumes of consistently good quality fruit throughout the year in an environmentally and socially responsible manner.

### **Current Operations:**

Cutting-edge Glasshouse construction technologies and operating systems have been incorporated into the design and fit-out of the Glasshouse at Two Wells.

The construction of the Glasshouse is predominantly Glass Panels which filter UV rays to allow more useful light to reach the plants. The internal steel structures have been painted white to reflect light and boost crop yield.

The water used at the Glasshouse is sourced from both Adelaide's waste water and the collection of rain water on site. Approximately 800 Megalitres of waste water is diverted to the Bolivar Water Reuse Project, near Virginia, north of Adelaide, and treated before being piped to the specially designed water treatment plant at the Glasshouse. There, a reverse osmosis plant further filters the water, sending 85% quality water to the crop and 15% waste water (hyper-saline) to an evaporative pond.

Further augmenting the Glasshouse's water supply is a 100% closed watering system that collects rainwater from the facility's vast roof, then netting and treating the water before reusing it on the tomato crop.

An evaporative cooling system maintains an optimum temperature - averaging 21°C over a 24-hour period - inside the Glasshouse, irrespective of outside conditions. It is this combination of sunlight, clean, fresh water, and a controlled climate, that work together to create perfect growing conditions.

This is an extremely efficient method of growing crops. One hectare of Glasshouse grown tomatoes produces 10 times the amount grown in an open field of the same size, whilst using one-sixth of the amount of water. Growing tomatoes in a protected environment means crops are less susceptible to disease than open-field crops; yields and quality are higher and more consistent; and running costs are considerably lower. Protected from bug infestations and extreme weather events, Glasshouse grown means less reliance on sprays and a guaranteed, year round supply.

Inside the Glasshouse tomato plants receive constant attention. As there is no soil involved in hydroponics, nutrients and water are delivered directly to the tomato plants, maximizing efficiency and minimizing waste. To optimise the available energy and light throughout the growing process excess foliage and fruit are removed and the vines are trained up wire trellises. The first tomato crops are ready for harvest within approximately 12 weeks after arriving at the Glasshouse.

Seedlings are propagated off-site to meticulous specifications. Suppliers are required to produce grafted seedlings of a particular height and leaf span specific to each variety. At 35 days old, the seedlings are packed and transported to Two Wells, where they are transplanted and grown hydroponically to maturity under the watchful eye of expert growers who are experienced in producing outstanding Glasshouse tomatoes.

The state-of-the-art purpose-built Glasshouse is a sustainable development that seeks to minimise its environmental footprint where possible. It is the largest Glasshouse in Australia to use pad and fan climate control technology and a co-generation plant run on natural gas that creates the power, heat and carbon dioxide (CO<sub>2</sub>) all of which is used inside the facility.

**Current Limitations:**

The major limitation to further expanding our operations at Two Wells is water availability during the summer peak period. We currently source 1ml per day in winter and 2.6ml per day in summer. With the expansion of a further 8 hectares (currently under construction) these requirements will increase to 1.3ml per day in winter and 6ml per day in summer.

The issue is that the infrastructure is not available for that expanded volume of supply in summer.

To overcome this summer limitation, the current expansion includes a 180 Megalitre dam located on site, allowing the sourcing and collection of available water from the Boliver Water Reuse Project in winter of 2.6ml per day and storing it until required in the summer period, thus allowing us to only draw the original 2.6ml in the summer period.

At these volumes, we believe we have reached a peak with the available resources for production.

**Future Opportunities:**

The “Expanded Horticultural Production – Northern Adelaide Plains – Waste Water Reuse” submission to the Green Paper is perfectly aligned with the interests of the North Adelaide Plains region and will allow us specifically, and other farmers in the area more generally, to expand production of high quality Fruit and Vegetable produce for supply within Australia as well as providing the opportunity for export to China and SE Asia, thus keeping more Australian families at the cornerstone of farming.

By expanding the availability of reliable water to the Adelaide Plains, Perfection Fresh has done an assessment of the potential expansion opportunities and has come to the conclusion that we have the opportunity to expand our operations to utilise between 1.3 and 2.1 Gigalitres of waste water in the near future on the North Adelaide Plains.

We have looked at this project as both an opportunity to contemplate further expansion of the current Glasshouse facility to take up market volumes as the market expands for Glasshouse grown protected crops and as an opportunity to expand our operations into innovative protected cropping programs around other products like Berries, Table Grapes, Brassicas, and other general vegetable produce required for our Domestic and Export markets.

<b>Opportunity</b>	<b>Land Required</b>	<b>Water Required</b>	<b>Labour Required</b>
Expansion of current Glasshouse Operations	80 Hectares	750 Megalitres	450 FTEs
Introduction of other Protected and Semi-Protected Cropping	220 Hectares	1300 Megalitres	138 FTEs

As you can see by the table above, expansion of a Glasshouse type, intensive farming facility, is the best utilisation of water when the aims are productivity, revenue generation and, in particular, employment, which can be measured at 1.67ml/FTE.

Other Protected cropping and Semi-Protected cropping opportunities in Fruit and Vegetable production are also attractive and allow for a less capital intensive roll-out of production in the region, and will still utilise labour at an estimated average of 9.4ml/FTE.

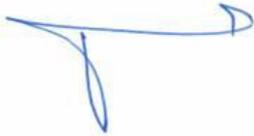
**Conclusion:**

We would encourage the Government to look favourably upon the “Expanded Horticultural Production – Northern Adelaide Plains – Waste Water Reuse” submission and move it from a project that is suitable for further consideration to a project that is likely to be sufficiently developed to allow consideration of possible capital investment within the next 12 months.

Perfection Fresh, as an active participant in the industry and an interested party in the offtake of such water, believes this meets or exceeds the Commonwealth’s requirements for Water Infrastructure Projects.

It will allow further commercial relationships between the South Australian Government owned operation, SA Water and participants like ourselves in the Northern Adelaide Plains, to have the potential to be an important hub for the production of year round Fruit and Vegetables through the further utilisation of protected cropping infrastructure and a sustainable water source. This is evidenced by the D’VineRipe operation, which currently supplies approximately 25% of the speciality Tomato market across Australia.

Yours faithfully



**PETER EDWARDS**  
Managing Director