Welcome to the second last edition of the DAFWA Gascoyne Food Bowl (GFB) newsletter. As we are now nearing the completion of the four year Royalties for Regions GFB project, it is timely to reflect on key milestones achieved during this time.

- In excess of 400 hectares of new land has been identified and incorporated into the Shire of Carnarvon's town planning scheme for horticulture expansion.
- 4 Gigalitres of new water has been sourced.
- Electrification of Stage 1 (0-11km) complete, Stage 2 is nearing completion (11-24 km)
- The collector main pipe construction is underway and due to be completed in late September 2016.
- The final drilling program has been completed

Thank you to all who have been involved with the project and have offered their advice and/or support.

Tony Della Bosca
Project Manager
Irrigated Agriculture

New Pipeline commences
A new collector main pipeline to boost the volume of water available to Carnarvon horticulture growers and expand production in the region is under construction.

Construction company SSP Diverse was awarded the contract to build the 25 kilometre long Northern Borefield Pipeline, as part of the $25 million Gascoyne Food Bowl project, funded by the State Government’s Royalties forRegions program.

The contract was the culmination of four years of work towards providing a high quality water supply and associated infrastructure to increase irrigated agriculture production in the Gascoyne by 400 hectares.

When the pipeline is complete, the current water delivery capacity will increase from 183 to more than 550 litres per second from the northern bore field.

The pipeline will be supported by the electrification of the northern bore field, which will ensure the consistent and more efficient delivery of water for horticultural crops.

More than 120 exploration bores have been drilled by the project, from which 40 production bores have been established to deliver four gigalitres per year with an average flow of more than 12 litres per second per bore.

An additional two new production bores have been drilled by the GFB project for Gascoyne Water to assist them in delivering their allocation – flow rates are yet to be confirmed.

Electrification

- Stage 2 Electrification is nearing completion as we compile this newsletter.

Drilling has recommenced

1) Four sand spears are now installed along the stage 2 area (11-24km) with a capacity to draw 30-60 litres per second each when conditions are suitable. They will be equipped when power is available to those sites.
**Existing Industry (Gascoyne Water)**

The GFB project has also been able to help the existing horticultural industry through increasing system capacity of Gascoyne Water Cooperative to 183 l/sec. GFB has funded in excess of 30% of this capacity for existing growers. The GFB project was recently able to drill an additional two production bores in stage 1 for the industry at no cost to Gascoyne Water and access to another two production wells to assist in meeting periods of peak demand.

DAFWA is working with the water managers DoW, and providers Gascoyne Water Co-operative and Water Corporation to make the GFB water available for temporary trade until the new land is bought into production, as well as identify further water in the system for current growers to access.

**Land Expansion**

In addition to the infrastructure work being conducted for the project, progress for land tenure change and development is continuing.

Technical studies including an airborne electromagnetic survey (AEM) analysis, soil surveys, revised floodway modelling, land use constraint mapping and flora and fauna surveys have been undertaken to identify suitable parcels of unconstrained land. As a result, about 600 hectares of high to moderate capability land has been identified with 400 hectares being selected for potential annual and perennial horticulture.

The GFB District Structure Plan and Scheme Amendments, which will incorporate the ‘new’ GFB land into the Shire’s town planning scheme, has been adopted by the Shire of Carnarvon and circulated for public consultation.

A public information session was held in March 2016 where Town Planning consultants Urbis, commissioned by DAFWA to undertake the technical and land use planning studies and specialists from DAFWA were available to answer questions and provide information.
Minor changes were made to the documents and Carnarvon Shire Council adopted the final plan in April 2016.

The Carnarvon Shire Council has delivered the Irrigated Agriculture structure plan (IASP) to the Western Australian Planning Commission (WAPC) for approval. The town planning scheme is part of a parallel process to expand the land in Carnarvon. Department of Lands (DoL) will continue to work on the land tenure change: from Unallocated or Vacant Crown Land and Pastoral lease tenure into a Section 79 lease (a General Lease granted for a purpose and subject to conditions), and then ultimately to freehold, which requires Native Title negotiations to occur first.

DoL is awaiting approval from the Minister for Lands to proceed with the Notice of Intention to Take (NOITT). DoL is also progressing Native Title Negotiations.

Once the 400 hectares of land is released, horticulture production in the Gascoyne will have the capability of generating an additional $20 million per year.

**Market Analysis**

The Department of Agriculture and Food, WA (DAFWA) commissioned *Growing the north – market opportunities for irrigated agricultural produce from Northern Western Australia* to identify potential products which suit northern production conditions and export market demands.

Eighteen potential products were identified as opportunities for irrigated agriculture in northern WA ranging from walnuts and lucerne hay to cotton and sorghum.

The discussion document by a consultancy took a preliminary assessment of potential market opportunities for irrigated agricultural produce in northern Western Australia.

This document is about stimulating thinking and discussion. The next step is to assess the commercial viability of potential crops in the context of our northern environment.

*Growing the north* undertakes a preliminary assessment of potential market opportunities for irrigated agricultural produce in northern Western Australia and targets the strategic market research gap between work that businesses routinely perform themselves and country-level commodity data provided by national statistics agencies. It identifies agricultural products grown using irrigation in countries regarded as “climatic peers” to northern WA, connecting these with significant demand in growth-markets and countries.

This information will assist businesses, industry and potential investors identify market opportunities for irrigated agricultural produce from northern WA.

Check out the full report on the Department of Agriculture and Food’s website at: 
Next Steps for the Gascoyne and Foodbowl Initiative

The next steps you can look forward to seeing are:

- Completion of pipeline
- Completion of drilling
- Completion of electrification of Stage 2 (11-24km)
- Expressions of interest for land
- Water allocation/association to land policy
- Defining owner and/or manager of infrastructure and water
OTHER DAFWA news

Horticulture Development

Tomato Field Day
The tomato seed screening trial had its field day on the 20th July. This is the second year for the trial which is a joint activity between CGA, GIIG, DAFWA and the seed companies. The seed companies where very happy with the progress from the year before. The event is seen by the seed companies as strongly beneficial for variety selection and most importantly to the grower’s futures to ensure that they have access to the best available varieties. A further two companies have been approached and are interested in participating next year. Six seed companies participated this year.

Banana Roadshow
The banana roadshow is a six-stop national roadshow series which toured the main banana growing regions in June and July. The presenters profiled the results from the last two years of industry-funded banana research, bringing growers up to date with information on the Queensland TR4 outbreak, biosecurity, disease research, farm production, environmental practices and supply chain management.

The Carnarvon event was held at the Carnarvon yacht club – a favourite venue of the presenters who visited for the previous Roadshow. After the Roadshow, NSW banana industry development Officer Matt Weinert presented the Subtropical banana Nutrition workshop. The growers who attended all thought the day worthwhile with numbers up from the previous roadshow and over 50% of the Carnarvon banana production represented.

Cucumber green mottle mosaic virus (CGMMV)
Cucumber green mottle mosaic virus (CGMMV) was first detected in Geraldton in July 2016 on a symptomatic cucumber leaf sample submitted to DAFWA.

As of 31 August 2016, CGMMV has been detected in both Geraldton and Carnarvon. There are now seven infected commercial cucumber properties in Geraldton, all in close proximity.

In Carnarvon, there has been detection in a cucurbit crop and in an endemic cucurbitaceous weed (Mukia maderaspatana) growing on a fence line between two properties.

DAFWA is informing growers of the vital importance of farm biosecurity measures to prevent further spread of the virus. This has to date included farm biosecurity demonstrations, workshops and information sessions for cucurbit growers in Perth, Kununurra, Geraldton and Carnarvon.

DAFWA appreciates the support from growers across the State in allowing access to cucurbit properties for sampling. There has also been great support for improved farm biosecurity measures, including the introduction of locked gates, signage, and designated visitor bays.
DAFWA will be collecting further samples of the endemic weed *Mukia maderaspatana* from 5-9 September from road verges, reserves and Unallocated Crown Land. A previous sample of this weed collected in Carnarvon was found to be infected with CGMMV.

Sampling on private properties in Carnarvon will occur in October once melons are established.

Surveillance of Kununurra cucurbit properties will take place 12-16 September to determine CGMMV.

Surveillance of Broome cucurbit properties will take place 19-21 September to determine CGMMV.

No further surveillance will be undertaken in Geraldton. DAFWA has established that the virus exists in the Geraldton area, and a recovery phase for affected properties has commenced. Affected growers may need to identify alternative crops not susceptible to CGMMV, as part of crop rotations, as the disease can remain infectious in the soil for 2-3 years.

DAFWA will be interviewing affected Geraldton growers to assess the economic impact of the virus, to help identify alternative crops.

### Next steps for growers

DAFWA will be working with affected growers to develop personalised biosecurity strategies for their farms. Growers seeking information about on-farm biosecurity can contact DAFWA's Geraldton office on +61 8 9956 8555 or vegetablesWA on +61 8 9481 0834.

Also visit the [Farm Biosecurity](https://www.agric.wa.gov.au/farmbiosecurity) website. Additionally, a farm biosecurity information sheet, in both English and Vietnamese, specific to CGMMV is available from DAFWA’s CGMMV web pages – [agric.wa.gov.au/cgmmv](https://agric.wa.gov.au/cgmmv).

Report any suspect signs of CGMMV immediately to DAFWA’s Pest and Disease Information Service on 1800 084 881.

Alternatively, download DAFWA’s [MyPestGuide Reporter app](https://appstore.com/MyPestGuide) to your smart phone, take a photo and follow the prompts on the device.

Refer to the [vegetablesWA website](https://www.vegetableswa.com.au) for a Vietnamese version of the latest CGMMV update.

Cucurbit growers should seek a written statement from their seed suppliers stating that the seeds have been tested, using the ELISA method, and found to be free from the virus. This assurance should be obtained for both cultivars and rootstocks.

Cucurbit samples showing signs of the disease can be tested for presence of the virus at DAFWA’s Diagnostic Laboratory Service (DDLS) located at South Perth. DDLS can be contacted on (08) 9368 3351.


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