BREMER CATCHMENT ASSOCIATION INC.

April 2014

around the bremer

Special points of interest:

This Newsletter focuses on irrigation and the vegetable Growers within the Bremer catchment

Inside this issue:

President's Message	1
When the Fear of Plants is Dangerous	2
EnviroForum 2014	2
Precision Agriculture Irrigation	3
Handy Hints—Resource Guide	3
Growing Soybeans	4
Growing Vegetables for the Market	6

President's Message Gary H Cochrane

They say that ***"every drought is followed by a flood....and that every flood is followed by a drought"***. No words have ever been more apparent than those in the past few years. For some regions it appears that **"it's forgotten how to rain"!** What's happened to our reliable weather patterns? Have they changed that significantly, or do we, as an older generation simply become more aware of our weather and environment? Hmmmm.....the mind ponders .

On the 24Mar2014 I attended an SEQ Catchment meeting at the Aratula Hotel which was well supported by local landowners. Jean Bray and Nat Parker hosted the event which proved to be quite an interesting meeting with good topical discussion. One of the main discussion topics focused heavily on "sand / gravel extraction from local estuary systems". A number of local landowners have experienced significant deposits of sand/gravel coming down the estuary systems. So much so, that embankment erosion has been momentous in some areas, with up to several acres being completely taken away with flood waters.

There were a variety of stakeholders at the meeting which included SEQCatchments, [1]Scenic Rim Regional Council (SRRC), [2]Department of Natural Resource Management (DNRM), Bremer Catchment Association Members, [3]Landowners and [4]Sand/Gravel business people. [1,2,3,4]Stakeholders each provided an outlook on advantages and disadvantages on sand/gravel extraction. Whilst the intention of landowners to create a water flow and reduce sedimentary build up was outlined, from a business perspective it appears uneconomical at this stage. It was suggested that perhaps more information is required to better understand this issue.

Recently I visited the Upper Mt Walker Hillside Erosion Project with Bill Steentsma. Both Bill and I were keen to inspect the stabilization work being conducted and supervised by Project Leader (Dr John Jackson). The work is coming along well with a number of groynes (i.e. built from a bank to interrupt water flow) now constructed. The work is currently ahead of schedule and weather conditions are holding off nicely. Although as I scribe this note, significant rainfall is being received across many needy regions.

Bill and I also visited Mal Abbott's property and were both brought 'up-to-speed' with the past flooding events. Mal is quite passionate about his homeland region which shows in his knowledge and understanding of the area. We visited a number of sites where floods had devastated vegetation and in some cases completely removed the soil (large tons simply gone). In one particular area the entire bridge (Villis Bridge) had simply been swept away. Understandably in true Australian fashion these landowners have soldiered on and continued with their lives. Great to see the Australian spirit is alive and kicking.

I look forward to meeting up with each and everyone over the coming year.

Rebuilding Villis Bridge
The top of pink ribbon indicates the height of 2011 flood.

Weed Killer

Governments and their regulatory agents have identified the human health and environmental hazards of herbicides

When the Fear of Plants is Dangerous

[Herbicide pollution has become "safe" even though dangerous. When we use conventional weeding techniques that rely on herbicides, we are agreeing to both the risks and the background assumptions that underlie the normalcy of these risks. Rather than reduce the risks associated with herbicide pollution, these days we talk of "food safety" or "compliance within maximum residue limits". Governments and their regulatory agents have identified the human health and environmental hazards of herbicides, but they currently make very little effort to reduce or eliminate them. The normalisation of herbicide pollution is therefore not based on what would provide us with genuine safety, nor do regulators err on the side of safety when there is any uncertainty over a particular herbicide's impacts. As Hoffman (2013) notes, by not taking a precautionary approach, the regulators and users of herbicides are "risk takers". Worse, the risks we are taking with herbicides cannot be contained or limited to the decision-makers and users of herbicides. There are collateral victims to be considered in the so-called "war on weeds". For example, herbicides are found in the food we eat and the air we breathe. They are in our waterways and are affecting the lives of those beings that live in them. We are all being forced to accept the risks of deliberate acts of herbicide pollution. The risk-taking behavior associated with herbicides is therefore paradoxical – the more we seek safety through poisoning life, the more dangers we create.

Enviro Forum 2014
Biodiversity in Focus—Celebrating Success

.The Bremer Catchment Association Inc. will be participating at the Ipswich EnviroForum which will take place on Friday, 9th May from 8.30am—5.00pm.

The Forum will be held at the Metro Hotel Ipswich International, 43 South Street.

Presenters include well-known and respected environmental professionals, authors, academics and community leaders.

BCA will present a Power Point Presentation. Presenters will be Gary Cochrane (President) and Bill Steentsma (Vice President)

Precision Agriculture Irrigation

Reducing energy consumption and improving water use efficiency are key challenges in vegetable production. This project investigates the potential of site-specific irrigation to reduce water and energy consumption.

A linear move irrigator was modified to apply variable rates of water across a field in response to a network of soil moisture sensors.

In a carrot crop in 2010.2011, the variable rate linear achieved a 15% water saving compared to the conventional linear, with no difference in yield (75.3.t/ha and 78.7 t/ha respectively).

A traveling gun irrigator was retro-fit with telemetry and a pressure control system, which was then compared to a conventional travelling irrigator.

The modified traveller achieved a 10% greater yield of carrot than the conventional, with 15% less energy and 5% less water.

These systems demonstrate the potential to reduce water and energy consumption during vegetable production and will be tested further in2011 to assess cost benefit.

For further information contact:

E.susan.lambert@utas.edu.au

A Linear Irrigator

Two way water Pump in the Bremer Catchment

Handy Hints - Resource Guide

This brochure summarises useful resources for vegetable growers.
Each has been grouped into one of five focus areas - pest and disease management, production management, people management, resource management and business management.
The resources include fact sheets, booklets, user guides and online programs.

In many cases other resources are available, however, these represent some of the most recent resources, which are applicable to a wide range of vegetable producers.

To access the resources online, click on the title or the image alongside the description. Please **click here** to download the Handy Hints Resource Guide.

If you would like any of these resources mailed to you in hard copy, please contact your State Association (contacts listed below).

Vegetable growing is typically more labour intensive than other agricultural industries.

Growing Soybeans

You are more likely to succeed in growing soybeans if you:

- plant fresh, good-quality seed at the recommended rate
- choose varieties that suit your planting time, climate and market
- ensure effective inoculation using group-H soybean inoculant
- avoid moisture-stress throughout the growing season when irrigating
- manage, monitor and correctly identify and treat pests and diseases
- plant *phytophthora*-resistant varieties

harvest when seed moisture levels reach 16%.

Planting time and choosing a variety

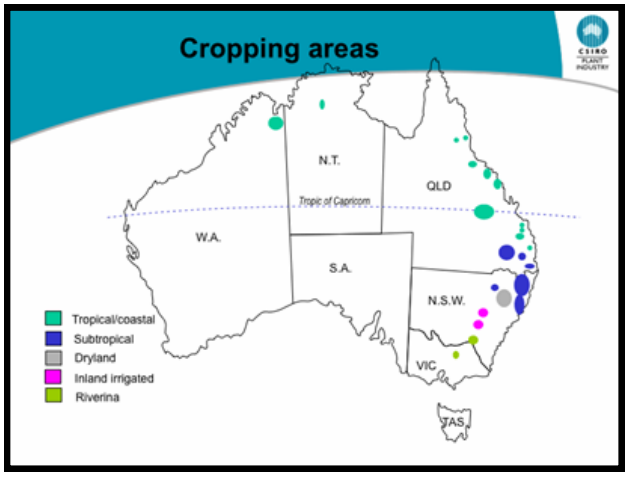
As a general guide, use the maturity group ratings to choose a variety suitable for a summer planting in your region:

1. north Queensland - groups 8 and 9
2. central Queensland - groups 7 and 8
3. southern Queensland - groups 5, 6 and 7 (incl.: Bremer Catchment)

Crop establishment

Plant population

In dry land crops aim for 200,000 plants/ha (and up to 250,000 plants/ha under favourable dry land conditions). On lighter granite soils 180,000 - 200,000 plants/ha is better.



In irrigated crops aim for 300,000 plants/ha or up to 400,000 plants/ha for high yielding situations, or for late plantings made in January. Some varieties of small or upright stature respond to higher planting rates.

Germination percentage

All seed offered for sale must clearly state the germination percentage of that seed line. Use the best seed quality available. It is not recommended to use seed lower than 80% viable.

Strongly consider using seed from the ´industry-approved scheme´ endorsed by the Northern Australia Soybean Industry Association (NASIA).

Row spacing

Row spacing of 70-100 cm is standard practice. Narrower row spacing of 20-30 cm can be an advantage in a high-yielding irrigated situation, or with a late planting where smaller bush size is likely to limit yield.

Irrigation

Soybean crops will achieve maximum yield potential if they are free from moisture-stress throughout the season. Moisture is critical during crop establishment as hot, dry soil kills rhizobia and root nodules. Very hot conditions can also kill emerging seedlings. Experience has shown that many crops, particularly in the Burdekin, have failed to nodulate sufficiently (and thus grow to potential) because they did not receive sufficient irrigation when small.

Mal Abbott in a Soybean field

For more details go to http://www.daff.qld.gov.au

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Working together

Growing Vegetables for the Market

In South East Queensland, the Lockyer and Fassifern valleys, eastern Darling Downs and Stanthorpe regions are major production areas for a range of vegetable crops (see Tables 1 and 2). These include lettuce, potatoes, brassicas (broccoli, cabbage, cauliflower and Chinese cabbage), onions, carrots, sweet corn, tomatoes, capsicums, green beans, beetroot and celery. More than 60 per cent of Queensland´s production of processing vegetable crops come from these areas, including potatoes, sweet corn, beans, beetroot and carrots. A wide range of other vegetable crops are also grown on a much smaller scale.

Table 1: Production (tonnes) levels of key vegetables grown in the Lockyer and Fassifern Valleys, Stanthorpe, Darling Downs and whole of Queensland for 2005-06 (ABS 2006)

Commodity	Lockyer	Fassifern	Stanthorpe	Darling Downs	Queensland
Asian vegetables	1509	124	636	54	4154
Beetroot	27,634	2465	0	1108	31,475
Broccoli	6762	372	712	2298	10,218
Cabbage	12,691	79	2784	4214	20,373
Capsicum	163	0	7397	0	52,352
Carrot	7400	13,358	1	939	22,148
Cauliflower	8332	33	4956	1153	15072
Celery	2313	0	1407	1494	5458
Green beans	2708	300	313	985	19712
Lettuce	37,058	173	5187	8037	53,152
Melon	4633	161	0	9	105,820
Mushroom	36	3199	1059	0	7193
Onion	14,084	4433	0	7260	27,410
Potato	21,436	744	0	5092	93,589
Pumpkin	9620	2116	65	982	47,161
Spring onion	2388	19	5	81	2897
Sweet corn	8546	495	0	1729	28,014
Tomato	5073	58	3456	0	108,672
Zucchini	156	8	2232	0	16,827
TOTALS	172,542	28,136	30,211	35,434	671,698

South East Queensland is able to supply a wide variety of vegetables to appropriate markets throughout the year. This ability is highlighted by the production timing chart for the Lockyer Valley

This table is taken from: **www.daff.qld.gov.au**

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