HCPSL
Herbert Cane Productivity Services Ltd.

THE CANE STALK

April 2021

Courses on Offer to all Growers:

- **Six Easy Steps**
- **Intergrated Weed Management**
- **Precision Agriculture**
- **Auschem (formerly Chemcert)**

INSIDE THIS ISSUE:

Message from the Manager.

Getting seed inspections in 2021

HCPSL will be offering growers the opportunity to use a new method of RSD testing for their seed cane for planting this year. The new RSD testing method is called qPCR and it is ~100x more accurate than the older methods used. The cPCR testing method uses DNA technology similar to testing used to assess for COVID-19.

How do I get my samples tested using the new qPCR method?

1. **You must contact the HCPSL office before the end of April to register** your interest in getting cane tested. There is about a **2-3 week turn around time** from sample collection time to receiving your results because the samples are sent to the SRA lab in Brisbane for analysis.
2. HCPSL staff will come on farm to undertake the tests. They will be working geographically across the district based upon time of planting.
3. Once HCPSL staff have received sample analysis results you will be notified.

Growers who miss the end of April deadline can still get access to the old less accurate RSD phase contrast microscope method, however growers will need to contact the office **no less than 1 week** in advance because of the higher workloads on staff who are required to plant more HCPSL Approved Seed plots and tissue culture nurseries this year.

The key message is–

Get your seed cane inspections done early as possible.
Forward planning is essential by you the grower.!!

Tissue culture Approved Seed cane– a viable option!

HCPSL are also taking orders for tissue cultured cane for delivery in 2022, by the 1st week of June. Growers can order as many tissue cultured plants as they wish of any of the approved varieties to be grown. Growers wishing to get larger quantities of the new varieties like SRA6, SRA28, QA07-2978 and QC05-1281 are urged to consider tissue culture because quantities from the HCPSL Approved Clean Seed plots will be limited in first 2 years after release (in some cases).

If you are first time tissue culture grower HCPSL Field Agronomy staff will be available to assist you. Contact the office if you are interested in ordering tissue cultured plants.

A recent study undertaken by HCPSL and SRA staff found that growers that regularly obtain Approved Clean Seed cane from HCPSL produce 13% more TSPH than growers who don't obtain material for planting. Getting and using Approved Clean Seed Cane on your farm is the easiest way to increase productivity!

Staff Profiles

Hello, my name is Livia Defeo and I am a Research Officer at HCPSL. I am based out of Toowoomba, but visit Ingham regularly.

I have a bachelor's degree in Agricultural Engineering from the Campinas State University in Brazil, where I completed some of my courses at the University of Queensland in Brisbane. I also have a master's degree in Agricultural Engineering from the University of Southern Queensland in Toowoomba. My master thesis dissertation involved soil mapping for the SIX EASY STEPS project at the Rocky Point Sugar Mill area, under the supervision of Professor Bernard Schroeder. My areas of expertise are precision agriculture, GIS analysis, data science and drone mapping.

I am also working for Sugar Research Australia at the data analysis department and have previously worked for the Centre for Agricultural Engineering at USQ, in a research project utilising drones for site-specific weed management. I started working at HCPSL in October last year. I am currently working on an externally funded project that HCPSL is involved with, as well as the Farm 2 Ocean project. My role is to undertake statistical data analysis of Herbert and other mill area sugarcane productivity data. My role involves a substantial amount of coding, mapping, and statistics. I am also writing code to develop a tool to automatically generate Individual Farm Productivity Reports (CAPA).

Hi, I am Sue Becarris. I am the Senior Administration Officer for HCPSL. I have been working for the company for a long time now. I lead the Corporate Services Team within the company.

I oversee all office operations for the company, responsible for payroll, accounts, data collection and work with Lawrence our Manager on HR issues, budgets, Board activities and financial reporting.

I have seen the company grow over the past 10 years to become the major provider of grower, extension and technical services for the Herbert industry. We have also grown in staff numbers over this time. This means we can provide a range of technical services for our members; which is a good thing.

To manage the bigger company we have implemented new accountancy, human resource management and workplace health and safety systems over the past few years. These systems ensures financial accountability, a safe working environment and a company that meets its clients needs.

FEAT ONLINE TRAINING WORKSHOP

FEAT Online is a free tool for Australian sugarcane growers. Learn how to calculate machinery and growing costs, compare revenue, and make better decisions to improve farm profit. Users can test different farming options before making financial commitments.

Join Sam Cook and Caleb Connolly — Agricultural economists from the Department of Agriculture and Fisheries (DAF) for this free half day workshop.

The event runs from 9am-1pm (lunch provided) on Thursday 13th May at HCPSL (181 Fairford Rd, Ingham QLD 4850). Please bring your own laptop if possible (but they can be provided).

FERAL PIG MANAGEMENT

Feral pigs continue to remain a significant issue in parts of the district. The efforts of the Hinchinbrook Shire Council Officer - David Bacchiella and HCPSL Feral Pig Management Officer– Ray Stallan are sometimes wasted when growers allow pig hunters on farm when 1080 baiting and trapping activities have commenced. In such cases pig hunters disperse the pigs and the effort is wasted. It is recommended that pig hunters are excluded from the farm when 1080 baiting and trapping activities are underway.

Scientific research clearly shows that 1080 baiting and trapping is more successful in reducing feral pig numbers than pig hunting and dogging.in the Wet Tropics. In the Hinchinbrook Shire area it has been observed that up to 20 –30 pigs can be exterminated in one 1080 baiting activity, so baiting and trapping really does work.

If you need assistance concerning feral pig management on your farm please contact: David Bacchiella on 0458 764 660.

New varieties from the Approved Seed plots in 2021.

There are 3 newer varieties to be released from our Approved Clean Seed Plots this year, they are WSRA24, SRA26 & SRA28. We are frequently get asked the questions, "Where can we plant them?" "What soil type to they perform best in?" & our favourite question "Are they any good?" Hopefully the following information will answer some of these questions:

WSRA24 (QA05-2486)

This variety made it through the SRA Plant Breeding Program because of its resistance to Pachymetra & smut. WSRA24 is a high yielding variety, which has displayed average to below average CCS results when compared to standard varieties. This variety is best suited to well drained fertile soils, which have displayed problematic Pachymetra levels. (If Pachymetra is not an issue there are other varieties better suited). WSRA24 has displayed poor tolerance to flooding & drought condition.

SRA26 (QN08-2282)

This variety has been observed to be comparable with Q208 & Q200 across different trial sites for yield & CCS performance. SRA26 is resistant to, Leaf Scald, Smut, Pachymetra, Orange Rust & Red Rot, making it an appealing for both performance & resistance. Throughout trials in the Herbert is was observed to have the ability to germinate when planted in dry conditions. It also displayed tolerance to waterlogging as it was deemed to be one of the "survivors" in a HCPSL RVT trial at Yuruga, which incurred lengthy waterlogging. (This trial has since been taken out as the majority of the varieties died off). This variety has a good trash cover and plenty hairy mary on its lead sheath.

SRA28 (QS08-8776)

This variety is on par with Q208 & Q200 with yield & CCS results across number of trial sites. It also has good disease resistance against Pachymetra, Leaf Scald & Red Rot. This variety has however been noted to have slow germination, compared to standards (can be similar to Q208). Hot Water Treatment has been observed to have a negative effect on the success of germination. This variety has not been exposed to adverse conditions in any Herbert trials ie: flooding, drought, so planting in these areas is not recommended at this stage. There is very limited amounts of this variety in the HCPSL Approved Clean seed plots, so it will be allocated on a quota system.

WSRA24

SRA26

SRA28

New varieties coming after 2021

The recent Herbert Regional Variety Committee meeting was held on the 30th of April 2021. The industry approved the release of the following varieties for industry use:

SRA6
This variety is already approved in FNQ. This variety is a strong ratooner and has only preformed well on poor to medium moist soils in the Herbert district. This variety is small is stature amd usually does not look appealing when compared to other varieties. The variety has a low plant cane yields, but improves in ratoons. The variety has many small but very dense heavy stalks.

This variety is Pachymetra resistant.

This variety will be released from the HCPSL Approved Seed plots in 2023.

QA07-2978
This variety was conditionally release pending leaf scald results and should it be approved limited distribution will be available at HCPSL Approved Seed plots in 2022.

The variety is intermediate– resistant rating for smut and is resistant to Pachymetra.

This variety has good– high yields in SRA trials, but lower CCS levels when compared to most commercial variety standards, except Q232. It is anticipated that this variety may replace Q232 on some soil types.

QC05-1281
It is proposed to release this variety from HCPSL Approved Seed cane plots in 2022 once sufficient matter is propagated up.

This variety has high CCS (all season) and yields similar or slightly below standard commercial varieties in SRA trials. This variety appears to be more suited to clay soils

This variety is resistant to smut, Pachymetra and leaf scald.

QN08-2274
The industry representatives decided to plant this variety in a number of strips trials in the Yuruga / Bambaroo area to assess the varieties susceptibility to smut in 2021.

This variety has only done well in HCPSL RVT trials in the Yuruga/ Bambaroo area, with 4th ratoon being the oldest crop. The variety appears to perform best on sodic duplex soils and on other soil types other varieties like Q253 and Q208 perform better. The variety has good CCS when compared to standard varieties in trials.

In the HCPSL RVTs and at the HCPSL Stone River farm no smut was observed in plant crops, however at the SRA Herbert Station near Ingham significant smut was observed. The variety is intermediate susceptible for smut, so further research is required before this variety is released to industry.

The Who, What, When, Where & How of the 2021 HCPSL Approved Seed Plots

Central Plot

Address: Hamleigh Rd

Varieties Available: SRA28, Q219, SRA26, Q250, Q242, Q200, Q183, Q253

Open Day: Tuesday 7.30 am

Whole stalk cutter: Available on open day. Trailer drop off prior to 7.30am Tuesday.

Billets - Please call, in advance, so a billet Harvester can be organised.

Staff Member: Sam Sellick 0417 622 129

Abergowrie Plot

Address: Abergowrie Rd

Varieties available: Q253, Q200, Q240, Q208, WSRA24, SRA14, SRA26, Q208, Q252, Q247, KQ228.

Open Day: Wednesday 7.30am.

Whole stalk cutter: Available on open day. Trailer drop off prior to 7.30am Wednesday.

Billets: Please call, in advance, so a billet Harvester can be organised.

Staff Member: Sam Sellick 0417 622 129

Ingham Line

Address: Hechts Rd Bambaroo

Varieties Available: WSRA24, Q232, Q253, Q208, Q250, SRA26, SRA14, Q240, Q183, Q200

Open Day: Thursday 7.30am

Whole Stalk Cutter: Available on open day. Trailer drop off prior to 7.30am Thursday.

Billets: Available on open day with notice.

Staff Member:
Tony McClintock 0447 304 963

Macknade

Address: Macknade TFD

Varieties Available: WSRA24, SRA28 Q253, Q208, Q200, SRA26, Q231, Q232.

Open Day: Friday 7.30am

Whole Stalk Cutter: Available on open day. Trailer drop off prior to 7.30am Friday.

Billets: Please call, in advance, so a billet Harvester can be organised.

Staff Member:
Tony McClintock 0447 304 963

Stone River

Address: Stone River (Wilmar Site)

Varieties Available: Q250, KQ228, Q208, Q253, Q219, SRA26, Q232, Q253, Q200, WSRA24, MQ239, SRA10, Q250, Q240, SRA14, Q138, Q238, Q215, SRA5, Q247, Q226, Q231.

Open Day: Wednesday 7.30am

Whole Stalk Cutter: Available on open day. Trailer drop off prior to 7.30am Wednesday.

Billets: Not available from plant crops.

Staff Member: Sam Sellick 0417 622 129

The Importance of Clean Seed to Increase Farm Productivity

Plant hygiene plays a critical role in enhancing farm productivity. By planting cane varieties from a known Clean seed source (HCPSL Seed Plot, Hot Water treating, tissue culture, seed inspections), the potential for a block of cane to maximize its growth, productivity (tonnes and sugar) and ratoonability is greatly increased. This in turn can result in a higher return to the farm dollarwise. Data analysis over a recent 6 year period has shown that varieties planted from a known clean seed source can potentially have up to a 13 % increase in production (tonnes of sugar/ha).

Depending on the disease, infected crops can experience significant crop losses in production. As an example, varieties infected with Ratoon Stunting Disease (RSD) can lose up to 60 % productivity in dry stress conditions and may have to be ploughed out 2 years earlier.

In addition to plant hygiene, growers also need to extend their hygiene practices to machinery and block preparation. Using infected equipment or planting into a fallow block with sugarcane volunteers can lead to the resulting crop becoming infected and maximum production reduced.

Take the time to get it right:

1. **Get Approved Clean seed cane from HCPSL!**
2. **Control volunteers in the fallow.**
3. **Practice good farm hygiene.**
4. **Sterilize planting and harvesting equipment.**

Fallow Management

Spray / Cultivation Options - Do's and Don'ts

This past year has had many challengers first with the dry harvest with very little rain fall only to change to a full-on wet season in a matter of a few days at the end of December. One of the challengers we faced was having enough soil moisture to plant legumes into our fallows and as a result most of the fallows are basically of a heavy grass nature. The challenge will be to control the grass and volunteer cane as early as possible to reduce the seed bed concentration.

We have 2 main options to consider, do we spray or cultivate our fallows.

There are 2 different ways to terminate your fallow legume or grassy fallow block.

- Termination by spraying out. The herbicide used would be Glyphosate (Wipe-Out 450 etc) based products at ***4-5 L/ha*** to control your volunteer cane, grasses, sedges and legumes. The addition of Fluroxypyr (Starane® Advanced etc) at ***0.8 L/ha*** is recommended as these 2 products are compatible and will aid in terminating your fallow crop. You may also add 2,4-D at ***0.8 L/ha*** to the mix however it ***must be compatible with Glyphosate.*** Refer to Glyphosate label, ***2,4-D Advance 700*** *is compatible* with the above 2 products. The addition of a wetting agent is recommended and LI 700 at 250-500 mls/100L will give the best results. Do not use spray oils with Glyphosate products or mixes as they are not compatible.

- Another product to consider will be Haloxyfop (Verdict®520). This product will only control grasses there for the addition of a broadleaf/vine herbicide need to be added. Fluroxypyr (Starane® Advanced) is compatible with Verdict®520 as a broadleaf / vine controller. ***2,4-D products are no compatible with Verdict®520 and should not be mixed together. If you have Sedges (Nut grass, Swamp sedge or Navua sedge) Verdict®520 and Fluroxypyr (Starane® Advanced etc) will not control these weeds. Giving you are very poor result.*** If these weeds are present Glyphosate mixes (as above) will give you the best results. A point to remember if you have a successful spray out the decaying weed residue will hold moisture and take longer to dry before you can do mechanical cultivation.

- Alternatively, mechanical cultivation like discing, speed tillers, slashing/mulching and rotary hoeing can be used to terminate and incorporate crop residue prior to planting.

- Be mindful that mechanical incorporation may cause legume nitrogen losses/tie-up as bacteria require nitrogen to break down the residue from the legumes/grassy fallow.

- Incorporated legume crops and grassy fallows may also attract Symphyla as they help in the residue break down process. Symphyla can cause germination and growth problems in young plant cane. To control Symphyla, at planting apply Lorsban @ 2.0 L/ha.

- A good crop of legumes can supply additional nitrogen. When side dressing plant cane consider reducing nitrogen rates following a legume crop. Refer to SRA 6 Easy Steps as a guideline for Nitrogen reduction.

For additional advice and information contact HCPSL Extension Agronomy Team

Options for ageing on your farm

HCPSL have partnered with Cultivate Farms to uncover ways to support both aspiring and retiring farmers to consider shared farm ownership opportunities that are good for them and Herbert River district community.

Cultivate Farms' vision is to rejuvenate regional communities. To remove barriers for farmers to realise their farming goals, whether a retiring or aspiring farmer. Cultivate Farms have a passion for finding ways for farmers to stay connected to their farm as long as they want and uncover options for farmers to age on their farm.

Across Australia, and we believe this is the case also in the Herbert River area, many farmers would love to stay on their farm as long as they want. But as farmers approach retirement age, the options to stay and work on a farm are harder to find, especially for those who don't have a pathway to hand the farm on to their family.

To help farmers consider their ageing on-farm options, Cultivate Farms wrote the 'Ageing on Farm' guide. It outlines practical ideas on what ageing on your farm could mean for you and how you could find a pathway to achieve your vision.

The project is funded by the Great Barrier Reef Foundation to resource us to share information and work through options with farmers.

HCPSL's role is to support program participants with the crop agronomy and farming systems advice. If you are interested in learning more about this project and to obtain a copy of the ageing on farm guide, please contact Sam Marwood (sam@cultivatefarms.com 0408 356 042) from Cultivate Farms. Both HCPSL and Cultivate Farms are conscious of your privacy, and if you might like to talk, we ensure that all discussions are confidential.

CULTIVATE FARMS

MODDUS®- cane increase CCS levels

MODDUS® is a sugar enhancer that increases CCS levels early and late in the season by redirecting the plant's energy from vegetative growth into the production and storage of sugar.
MODDUS® has been extensively assessed in the Herbert region in years gone by and continues to be used by growers throughout the Australian and Brazilian sugarcane industries to increase CCS levels. Growers should consider the products use to manage CCS levels.

The graph below highlights the differences in CCS that can occur through the use of MODDUS®.

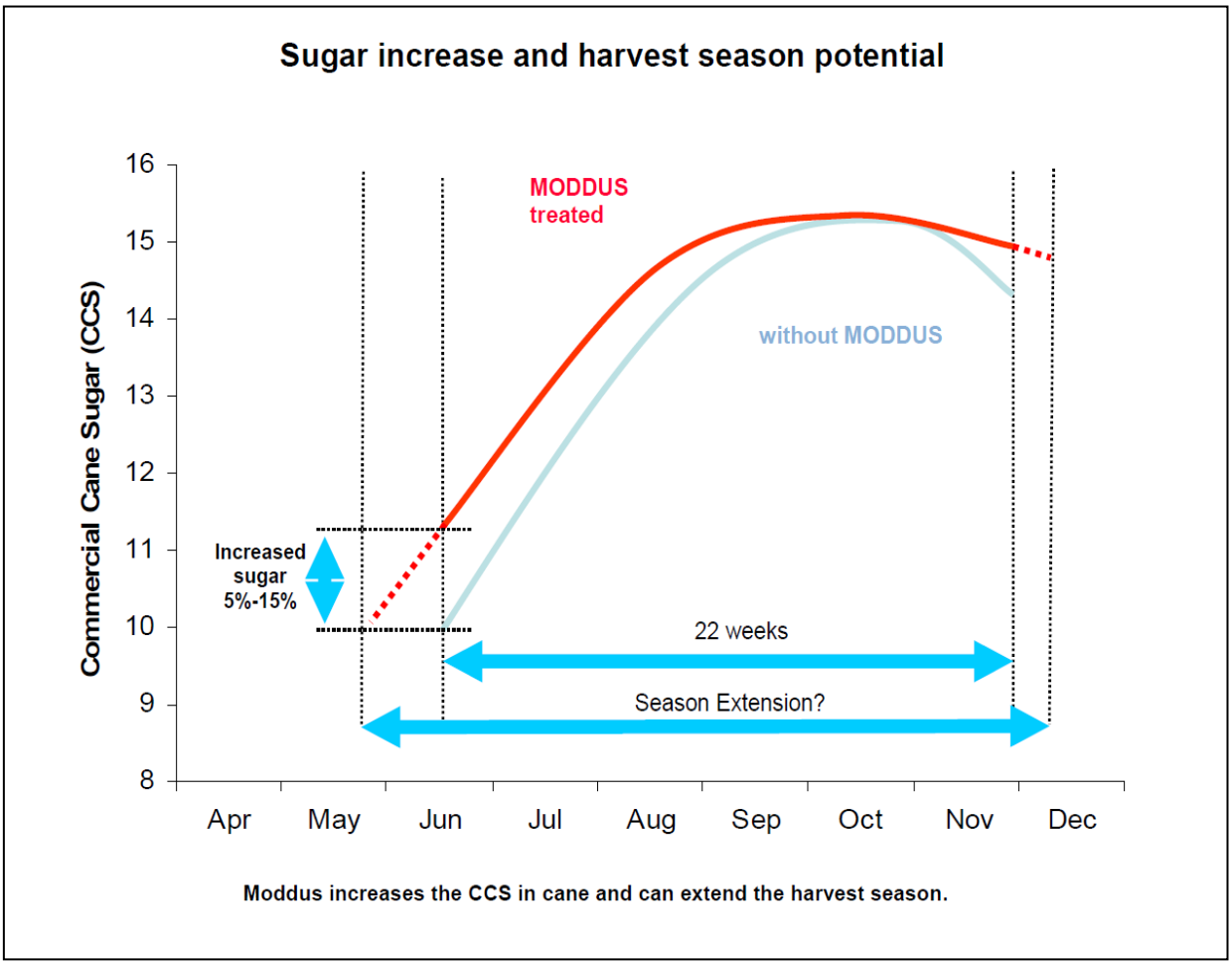
When do I apply MODDUS®?

MODDUS® must be applied at least 5-8 weeks before the harvesting of a crop.

What rate do I apply?

Apply MODDUS® at 800mL/ha, to healthy, actively growing sugarcane crops between 5 and 8 weeks prior to harvest.

For ground rigs, apply 150-500L of water per hectare. For aircraft, apply 25-60L of water per hectare. Use higher water rates in dense crops. MODDUS® is rainfast within 2 hours of application.



MODDUS® Best Practice

Syngenta and HCPSL recommends the following checklist to maximise the response from MODDUS® application:

- Ensure the crop is actively growing and not flowered.
- Ensure the crop is not stressed from disease, YCS, insect damage, poor nutrition, waterlogging or frost.
- To aid uptake via the foliage, ensure at least 8 green leaves are present. Avoid application to recently lodged cane until upright growth has recommenced.
- Avoid applications when conditions have been hot and dry in the week prior to application (greater than 30 degrees Celsius and less than 50% relative humidity).
- Time applications prior to, or right at the commencement of flower initiation. If spears are already visible then the optimal timing has already passed.
- Understand the ripening properties of each variety. MODDUS® gives the greatest percentage CCS increase when applied to varieties that are traditionally low in early sugar content.
- Do not harvest for 5 weeks after application.
- Do not graze or cut for stock food for 5 weeks after application.

What varieties should I target early in the season?

Responsive varieties: MQ239, Q183, Q215, Q219, Q231, Q240, Q247, Q253, SRA3, SRA5,
Less responsive varieties: Q190, Q200, Q208, Q237, Q242, Q250, Q252, SRA14, SRA26 (limited data)
Non responsive varieties: KQ228, Q226, Q232
Note: Responsiveness of a variety may differ between blocks and locations. Do not treated varieties that have flowered because response is usually low. The above rating is only an indicator based upon very limited data. Both HCPSL and Syngenta will take no responsibility concerning the chemicals performance on different varieties.

Is it economically viable for me to apply the product to my crop?

HCPSL Extension staff have a spreadsheet model that can be used to assist growers who are considering their options. Please contact the HCPSL office to make an appointment.

For further information please contact: a HCPSL Extension Agronomist or a Syngenta representative.

Source: www.syngenta.com.au

Herbert Cane Productivity Services Ltd.

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HCPSL Walk & Talk Day 2021

HCPSL
Herbert Cane Productivity Services Ltd.

Project CaNE
CROP & NUTRIENT EFFICIENCIES™

How do growers get involved?

Contact HCSPL or fill out and submit a Project CaNE™ registration form to HCPSL and one of our project staff will be in contact.

For Further Information Contact:

Project Co-Ordinator

Adam Royle 0417 610 446

Herbert Cane Productivity Services Ltd.

181 Fairford Road, Ingham.

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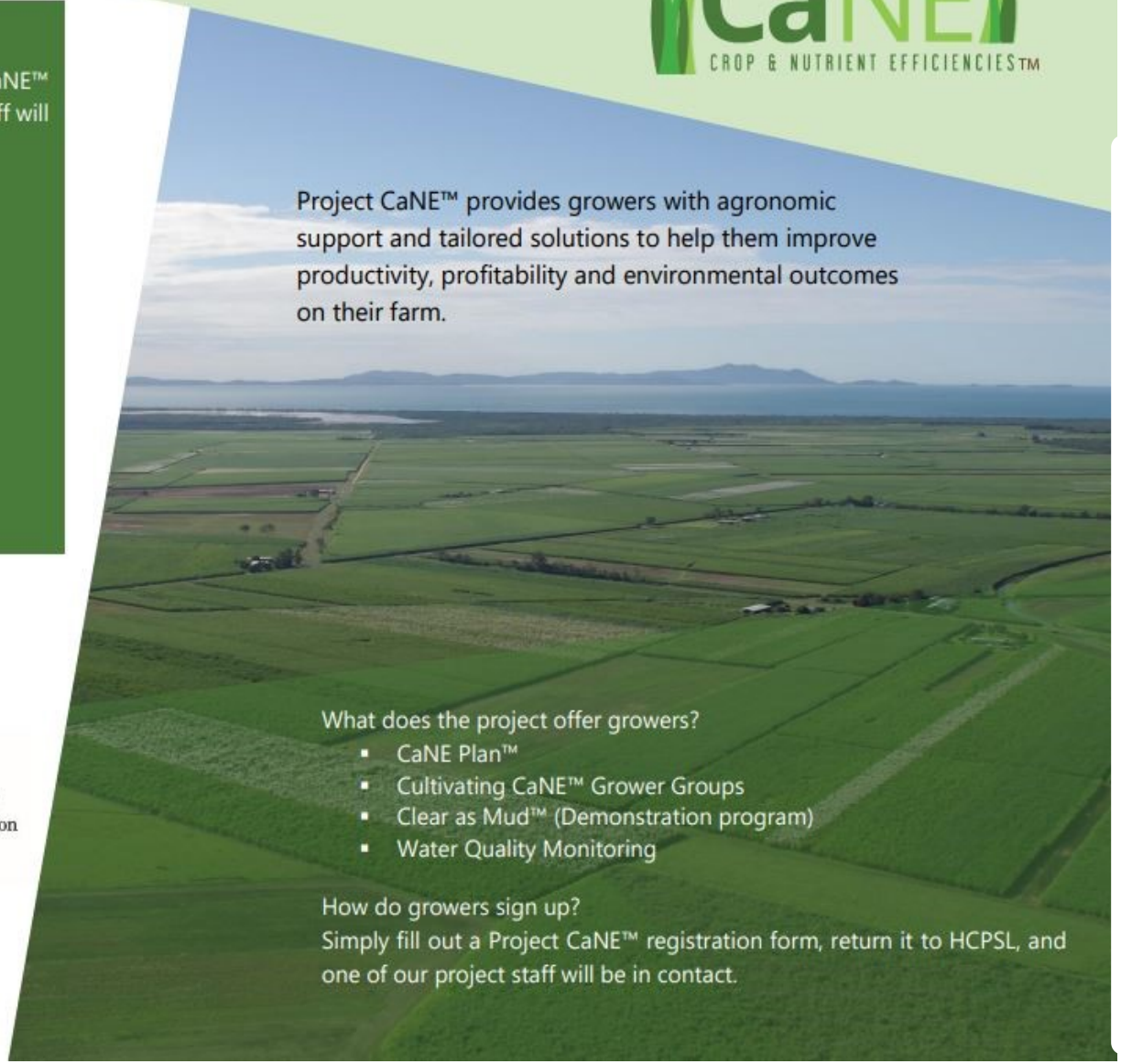
www.hcpsl.com.au

Project CaNE™ is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation.

Australian Government | Reef Trust | Great Barrier Reef Foundation

Queensland Government | TropWATER



Project CaNE™ provides growers with agronomic support and tailored solutions to help them improve productivity, profitability and environmental outcomes on their farm.

What does the project offer growers?

- CaNE Plan™
- Cultivating CaNE™ Grower Groups
- Clear as Mud™ (Demonstration program)
- Water Quality Monitoring

How do growers sign up?

Simply fill out a Project CaNE™ registration form, return it to HCPSL, and one of our project staff will be in contact.

What is a CaNE Plan™?

CaNE Plan™ is a whole farm nutrient management tool that provides growers with a one-stop solution to evaluating, managing and recording on-farm nutrient applications.

CaNE Plan™ offers growers a number of opportunities, including.

- ✓ Whole farm nutrient management plan and record keeping
- ✓ Onfarm support - soil testing and tailored agronomic advice
- ✓ Back 2 Basics™ and Farming 4 CASH® Workshops – hands on, interactive workshops tailored to grower needs

Growers who are interested in a CaNE Plan™ should complete a registration form to register their interest. Growers who have already received a nutrient management plan, and/or funding from Reef programmes, may not be eligible but are still encouraged to complete a registration form.

Cultivating CaNE™ Grower Groups

Cultivating CaNE™ Grower Groups are being established across the Herbert to provide growers with the opportunity to share, discuss and have input into the latest information relating to farming practises and water quality monitoring.

Why should I join a Cultivating CaNE™ Grower Group?

Have input on and access to the latest information relating to:

- ✓ On-farm trials and demonstrations (mill mud, fallow crops, farming systems and more)
- ✓ Local water quality results from farm and sub-catchment scale monitoring
- ✓ Soil health and nutrient management tools and advice

Who can join a Cultivating CaNE Grower Group?

All growers are welcome to join their nearest Cultivating CaNE Grower group by registering their details with project staff. Registering your contact details will allow us to notify you whenever the group meets and provide the latest information on farming systems, water quality monitoring and much more.

Clear as Mud™ Demonstration Program

Project CaNE™ is offering growers the opportunity to assess the benefits of mill mud based product applications on their farm. Project staff will work with growers to assess productivity and profitability relating to the use of these products. The opportunity to share and discuss results with other growers will also be explored through the Cultivating CaNE™ grower groups.

What do growers need to do?

Participating growers will need to...

- ✓ Agree to participate in the Clear as Mud™ demonstration program and provide a suitable block
- ✓ Allow project staff access to the site to collect samples and assess progress
- ✓ Agree to share results with fellow growers through the Cultivating CaNE™ grower groups

What information will growers get?

- ✓ Crop & nutrient assessments (soil & leaf sampling) before and after mud application.
- ✓ CCS and yield results
- ✓ Economic assessments
- ✓ Water quality comparison assessments (optional)

Water Quality Monitoring

Water Quality Monitoring will be carried out by project partners, in consultation with Cultivating CaNE grower groups. Results from farm and sub-catchment scale monitoring will be shared and discussed with project growers.