



# ANNUAL REPORT and FINANCIAL STATEMENTS 1 APRIL 2015 - 31 MARCH 2016



Burdekin Productivity Services Ltd – Annual Report 2015/2016

**Detailed Profit and Loss Statement** 

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# **Chairman's Report**

This report covers the period from 1<sup>st</sup> April 2015 to 31<sup>st</sup> March 2016. During this time, the board of directors have carried out their duties in a thoroughly professional manner and have always acted in the best interest of members. They should be commended for this.

# **Directors and Board Meetings**

Six regular board meetings and one special meeting of directors were held during this period. Directors also met on numerous other occasions to ensure that the business of the board was attended to. All directors are thanked for the effort produced, and the time taken in performing their duties.

### **Board Structure**

The current board consists of the following directors:

Grower-elected Directors - Mr CJ Hesp (Chairman), Mr BG Davies, Mr PA McDonnell

Wilmar-appointed Directors - Mr PL Larsen, Mr LW Danello, Mr IR Davies

Company Secretary - Mr ME Rickards

# **Management and Staff**

On behalf of the board, I thank Rob Milla (Manager) and Mark Rickards (Commercial Manager) who have ensured that the management of the business has run smoothly throughout the financial year.

Rob Milla continues to excel as manager, ensuring staff remain focussed on delivery of BPS core business that includes crop data collection, distribution of approved seed cane and all other aspects of pest and disease control. He also has been very active in liaising with government departments and other agencies to gain leverage for growers and help defend the industry against misinformation. Together with Mark Rickards, the management team has been supported by a very capable and committed group of permanent field staff and agronomists. Rob utilises his technical knowledge to ensure the agronomy side of the business is running efficiently, while Mark as the Commercial Manager is responsible for overseeing the field staff duties. He also keeps tight control over company finances and ensures that the business remains compliant with all regulatory requirements.

Thanks goes to the committed team of field staff and agronomists.

Ray Hildebrandt, Dave Paine, Brendan Arboit and Ashley Wheeler are our very committed team of field officers. Collectively they have in excess of fifty years' experience in both pest and disease control and just as importantly form part of a very valuable conduit between growers and our agronomy team.

On the agronomy side, Marian Davis, Tiffany Hunt and Terry Granshaw have contributed positively to BPS project related activity during this period. In addition to this, they have also been available to

provide valuable extension support, no matter how varied, to all members. It is very pleasing to see many growers utilising these services, especially now that SRA have changed direction in this regard.

Brendan Montafia remains on track to become the first in house trained agronomist. It is very hard to balance work and study time, but he has shown a commitment to the task and we are all proud to see him progress. BPS hope to continue supporting local youth in gaining tertiary qualifications in agronomy. Our hope is that these graduates stay in the district to benefit all our members with sound, home grown agronomic advice.

## **Strategy & Direction**

Control of pest and disease will always remain core business for BPS. The importance of this was clearly evident during the year when protocols for RSD testing were increased dramatically to include all mill areas on an annual basis as opposed to only two mill areas being surveyed each alternate year. In addition, a new testing procedure LSB-PCR was trialled alongside the existing industry standard ELISA method. Initially this meant a lot more work for all staff, however they remained committed to see the task through. Although still in the trial stage, it is hoped that the LSB-PCR testing procedure will be refined sufficiently to supersede the ELISA method. This will increase efficiencies in RSD testing throughout all sugar cane growing regions. Adoption of new technology remains a key strategy of BPS.

When compared to last year, the delivery of extension services to growers has increased extraordinarily. It is very pleasing to see our members utilise the services of our extension staff. Field officers remain the first point of contact and provide a pathway to agronomy support. The combined experience of both field staff and extension officers allows BPS to provide a balanced and very valuable service to all members.

As mentioned earlier, various governmental departments and other industry bodies are working closely with BPS to complete a variety of funded project activities. Because we have local knowledge and foster strong relationships with sugar industry stakeholders, these organisations realise that BPS forms an ideal link between themselves and growers. While it is easy to be involved in any project that becomes available, BPS has ensured that our involvement is restricted to relevant activities that are designed to benefit our members and progress the company strategy.

The board and management remain focussed on the strategic plan for years 2015 – 2017. We are at the halfway point and remain confident that productivity will continue to increase across the district. The 2014 crop was 8 000 000 tonnes, 2015 harvest was 300 000 tonnes more and hopefully this crushing season will improve even more. With favourable growing conditions and reasonable season length, the ultimate goal of 9 million tonnes of production is within reach.

Sales of approved seed cane in 2015 were disappointing but so far in 2016 we have seen a marked increase. It is extremely important that members have a well-planned seed propagation program in place. Clean cane is the primary point of disease control.

Farm profitability will always have an undeniable link with farm productivity which in turn needs to be carefully balanced with farm sustainability.

While preparing the 2016 Chairman's report I looked back at the 2015 report for ideas. How things can change in 12 months!

I quote in regard to comments that were made "there are obstacles in the way and the board is fully aware of these. Water restrictions and a low price for sugar loom as the principal threats to achieving our goal. I ask all growers not to give up hope. Circumstances will change. They always do. It will rain again and the price will eventually go back up. Growing sugarcane is a long term proposition and now, more than ever, our members should seek out assistance from BPS to ensure they are in a position to take advantage when better times return."

Today the emphasis is not only on harvesting the 2016 crop in a timely manner and taking advantage of a terrific price, but it is also about setting up the 2017 crop. Early plant is looking very promising throughout the district and if the ratoons come away in a timely manner the unseasonal wet weather we have experienced will hopefully have a minimal effect.

## **Projects**

BPS continue to involve themselves in government funded projects that are relevant to the sustainability of Burdekin growers These include Smartcane BMP, NEMO (nitrogen, soil amelioration & water quality), Wetlands Care Australia – Barratta Catchment Project, Rural Water Use Efficiency-Irrigation Futures, Reef Programme and Grower Group Innovation Project-Harvesting Best practice. Growers may question the validity of our involvement in some of these projects, but be assured that our input is a necessary step in maintaining a viable local industry and furthermore, our participation can be regarded as insurance against the looming threat of governmental over regulation, particularly where the Great Barrier Reef is concerned. The BPS board and management have always made sure that any external projects align with the strategic plan and ultimately improve productivity, profitability and sustainability.

## **Plot Holders**

I would like to thank all plot owners and plot managers for their contribution throughout the year, especially when plots were closed due to some uncertain results being returned on several RSD samples. Approved seed cane is one of the most important components of a sustainable sugar cane industry. Control of disease is of paramount importance and can never be understated. BPS enjoys a great relationship with all the collectives and growers who allow seed cane production on their land. The collectives continue to give generous support to BPS in this regard and in all other facets of the operation.

## Membership Fees & Funding

BPS membership fees have remained at 7 cents/tonne for all members for several seasons and will remain at the same level in the current financial year. We have been able to deliver increased services whilst maintaining the levy at this rate. The board appreciates that the business is being well run and can see no reason why the levy should be increased at this time.

Just recently, the board decided to replace the \$4/tonne surcharge on seed cane sales with a \$2/tonne plot management fee. Our primary focus will remain to improve the profitability of our members by

providing quality services and sound agronomic advice. We will continue to seek project funding to supplement the income stream, but more importantly deliver relevant outcomes for members.

# **Buildings & Infrastructure**

During the 2015-2016 financial year, the building extension was completed and fitted out with furniture. The facility has proven to be a good investment as it has been utilised on a daily basis. There are two private offices for the agronomy staff who can discuss issues with growers in a confidential manner and the board room has been extremely well used for various meetings with members and other industry stakeholders.

Early in 2016, the computer network was upgraded as the lease had run out and the units had become obsolete. One vehicle was changed over and a set of load cells were purchased.

A well-managed maintenance program of buildings and equipment will continue to ensure that BPS can provide services to its members in an effective and professional manner.

# Summary

The early finish to the 2015 crushing season set up an improved crop for 2016. At this stage the crop looks outstanding but unfortunately the crush has been held up due to unseasonal weather events. However if we can complete the harvest, the whole district should benefit from improved sugar prices in the short to medium term.

The key to maximising the potential of the 2017 crop is to be timely with on- farm operational processes. BPS staff are very willing to assist our members in achieving this outcome.

Chris Hesp Chairman 31<sup>st</sup> July, 2015.

# Manager's Report

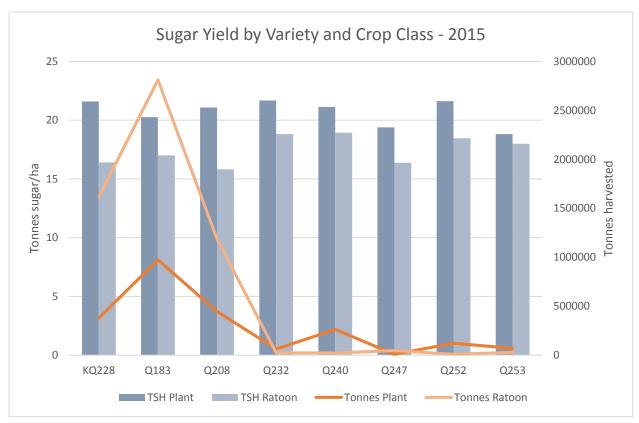
Throughout the 2015/2016 financial year, BPS has continued to deliver high quality pest and disease, variety distribution and extension services to its members. With a combination of good management and favourable weather conditions a pleasing crop of 8.27M tonnes (averaging 117.5 tc/Ha) for the region was achieved, even in the absence of full allocation of irrigation water. There are still many challenges faced by the industry - agronomically, environmentally and politically. BPS remains committed to serve its members in the most effective way, within our area of expertise.

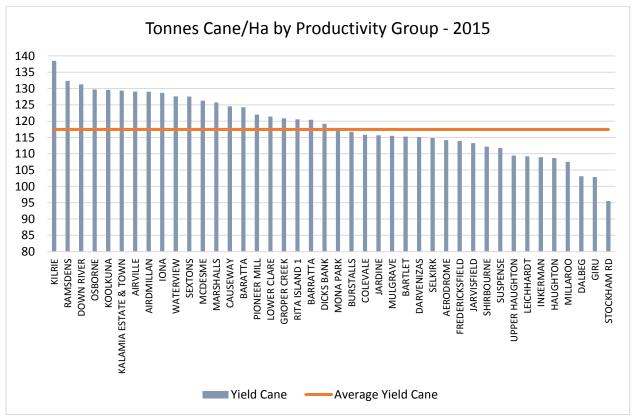
Approved seed cane sales were lower than the previous record year and members are encouraged to continue to regularly purchase approved seed cane, as appropriate variety selection and the cleanest possible source are the foundation of a well-managed sugarcane cropping cycle. Pest levels have overall increased slightly from the previous years, however crop damage from two of our major pests have decreased: pig damage decreased by around 25% and reported cane grub damage around 55%. Growers are urged to continue to monitor pest levels on their farms, contact your relevant field officer for assistance and implement appropriate management strategies to keep pest levels low. A new type of test for Ratoon Stunting Disease (RSD) was trialled by BPS this year in partnership with SRA. While the results from this trial are not available at the time of publication, it is hoped that the new procedure will be commercially adopted by SRA for 2017, as it offers some significant advantages in terms of speed of sample collection and processing time, as well as accuracy and sensitivity.

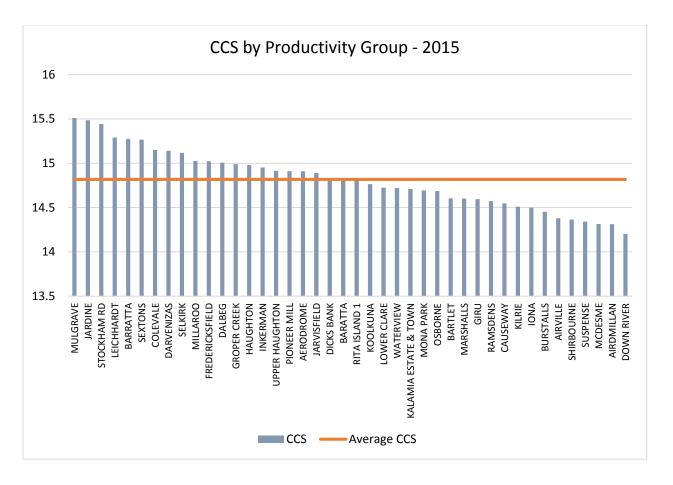
The BPS extension team implemented around 30 trials in 2015 for harvest in 2016, exploring aspects of nitrogen management, potassium rates, harvester speed, varieties, soil amelioration and enhanced efficiency fertilisers. Much of this work has been externally funded through various programs offered by SRA, Queensland CANEGROWERS, DNRM, NQ Dry Tropics and DEHP. Where funding opportunities are available that align with the BPS strategic plan and offer value to members, BPS will continue to pursue these opportunities. Over the last 12 months, there has been an increased demand for BPS extension services through soil testing, herbicide recommendations and spray unit setup, soil amelioration, legume cropping, irrigation, harvester optimisation and farming system advice. It is also pleasing to report that there has been a large increase in growers becoming involved in Smartcane BMP, with 20 growers fully accredited, representing around 7 000 Ha.

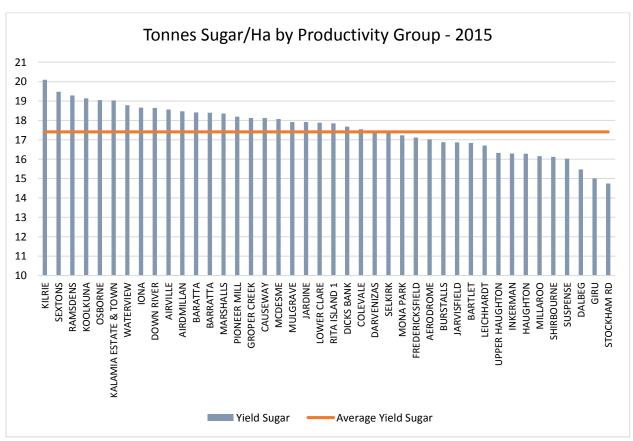
# **Productivity Results From 2015 Season**

The following are a summary of variety and productivity data from the 2015 season, data supplied by Wilmar.

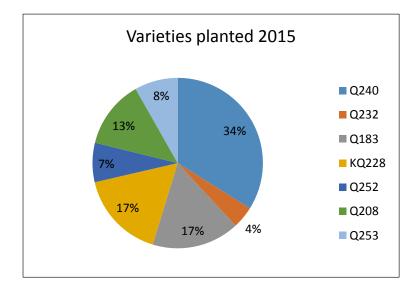






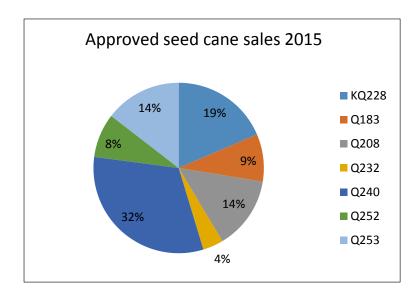


# **Area and Percentage of Plant Cane 2015**



Variety	Area Planted (ha)
Q240	3916
KQ228	1921
Q183	1920
Q208	1495
Q232	487
Q253	949
Q252	862
Q247	21
Q200	24
Q133	49

# **Tonnes of Approved Seed Cane 2015**



Variety	Tonnes Sold
KQ228	751
Q183	347
Q208	553
Q232	148
Q240	1290
Q252	331
Q253	594
Total	4014

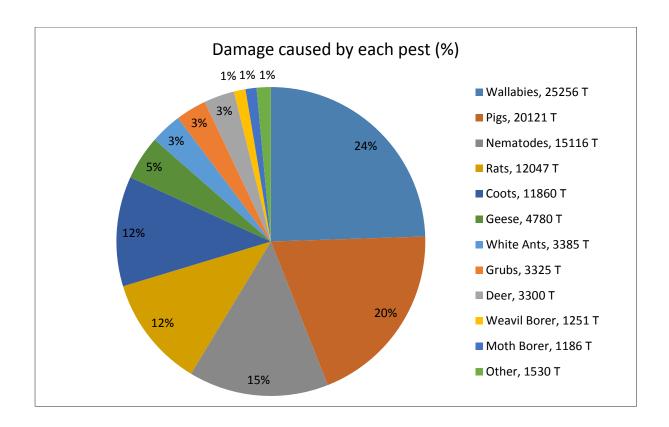
## **Approved Seed Cane**

Sales of approved seed cane decreased from the record sales of over 6000T in 2014 to just over 4000T in 2015. At the time of publication, BPS is planting approved seed cane plots for 2017 sales. The newly released variety (SRA8) is being planted with a stick planter to ensure maximum availability for growers upon release. With limited plot areas available, it is always a challenge to predict what volumes of approved seed cane will be required 3 years out. It is important that members discuss their seed cane orders and requirements with field staff, so all factors can be considered when planting our mother plots. Regular use of approved seed cane remains a basic principle in management of disease and improvement of productivity.

Mill Area	Plot	Tonnes sold	Total Tonnes For Mill Area
P & K	Whitson's	1531	1531
Inkerman	Klaka Rd	1500	1500
Invicta	Giru (Lyons)	394	
	Millaroo (Cervoni)	39	983
	Clare (Rapisarda)	298	7 303
	Brock Rd (JJB Farming)	252	
Total		4014	4014

## **Pests**

Pest damage results are shown below, this data is compiled from data collected by BPS Field Officers from each grower during collection of crop data. In terms of financial impact across the region, our two most damaging pests are pigs and wallabies. The graph shows percentage of total tonnes damaged by each pest.



Pest	Tonnes Damage	\$ Damage at \$40/T
Wallabies	25 256	\$1 010 240
Pigs	20 121	\$804 840
Nematodes	15 116	\$604 640
Rats	12 047	\$481 880
Coots	11 860	\$474 400
Geese	4780	\$191 200
White Ants	3385	\$135 400
Grubs	3325	\$133 000
Deer	3300	\$132 000
Weevil Borer	1251	\$50 040
Moth Borer	1186	\$47 440
Kangaroo	450	\$18 000
Wire Worm	270	\$10 800
Cockatoos	200	\$8 000
Army Worm	160	\$6 400
Symphyla	150	\$6 000
Soldier Fly	100	\$4 000
Emus	100	\$4 000
Cows	100	\$4 000
Total		\$4 123 280

## Canegrubs

While canegrubs are not widespread as in some years in the past, they still are a major pest for our region and need to be controlled.

During the 2016 BPS grub flight, minimal damage was observed within the Kalamia, Pioneer and Inkerman areas and only a relatively small percentage of this damage was suspected to be from cane grubs. Most of the grub damage detected throughout the survey was within the Invicta area, mainly concentrated in the vicinity of Giru. However, no severely grub damaged blocks were recorded.

When harvesting blocks, if any indication of grub damage is observed, please contact your field officer for a paddock inspection. Affected stools will appear to be sick and lodged and can be pulled out of the ground without much effort.

The visible reduction in grub damage can be attributed to a positive uptake in current grub control products. However, growers must ensure that they continue to treat and do not become complacent.

At present, there is still only one registered chemical available for control of canegrubs – Imidacloprid (in both liquid and slow release granule form). There is increasing scrutiny on Imidacloprid due to its potential movement into waterways. This product has been banned in some other countries and it would be disastrous for growers in grub prone areas if this product lost its registration. Growers are urged to strictly follow label directions when using Imidacloprid based

products and ensure that losses of irrigation water after application of these products are kept to a minimum.

## **Pigs**

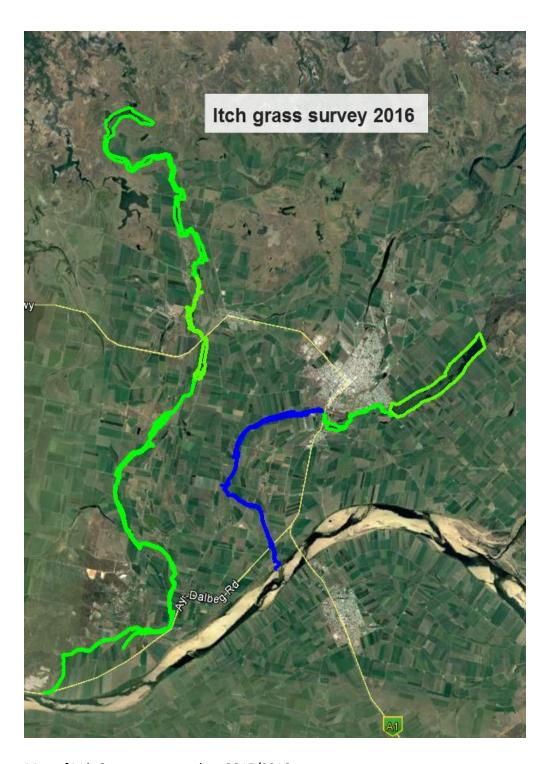
Pig pressure in 2015/2016 has decreased from previous years. Data collected through a project funded by Wetland Care Australia in partnership with BPS showed pigs trapped have decreased since the start of the project in 2013. Pig numbers observed during aerial surveys were very low. Data collected from grower crop data surveys indicated around 20 000 tonnes of cane (or around \$800 000 of crop value at \$40/T) were affected by pigs, this is down from around 27 000 tonnes in the 2014/2015 season.

If growers have pigs on their property, BPS has a subsidy for aerial shooting available to members. Please contact your field officer for details on how to claim this subsidy.

## **Itch Grass**

Itch grass control activities by BPS have increased over the last 12 months. Field staff regularly monitor and spray road and creek areas where itch grass is known to be a problem, and casual staff were employed to eradicate the weed in known areas. Areas noted in green on the map below are new monitoring tracking maps that field staff regularly observe and spray for itch grass.

Please contact BPS if you see areas of itch grass, so we can assist coordinating control. Washdown of equipment becomes very important when moving machinery between farms or areas to minimise spread of itch grass and other pests and diseases.



Map of Itch Grass survey tracks – 2015/2016

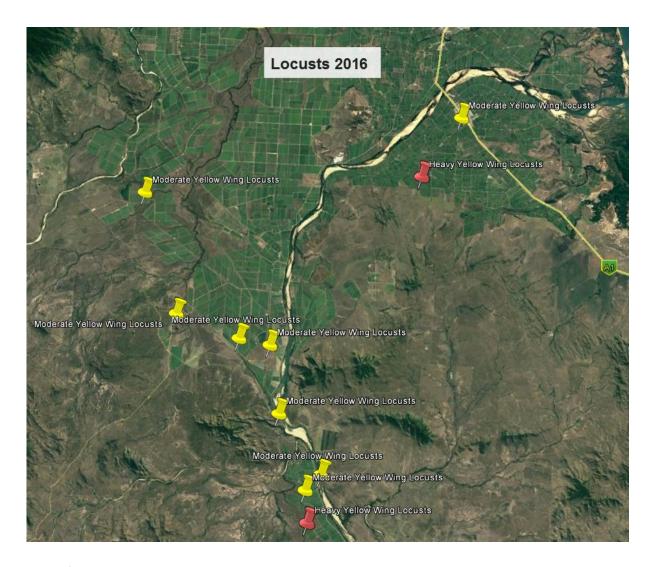
# Wild Sorghum

Wild sorghum is an ongoing weed pest in the region. BPS can assist growers who wish to rogue sorghum plants by organising casual labour to remove plants. It is critical to control blocks with sorghum pressure in the fallow. While optimal fallow management will not totally eradicate the plant (due to seed dormancy of up to 7 years), it will be a good starting point to minimise pressure in

the following cane crop. In 2016, BPS has funded some trials observing various herbicide applications to control sorghum in both plant and ration crops. As these results become available, they will be communicated with growers.

## Locusts

In March 2016 there was pressure from locusts (Yellow Winged) in a few areas – Upper Haughton/Stockham Rd and Millaroo in particular. In some cases there were more than 100 locusts per square metre. Damage to cane has ranged from light to moderate – often it was the outside few rows that had the top half of the leaves eaten. Damage was reported to Biosecurity Queensland and field officers did a great job keeping growers and Biosecurity Queensland informed. The insect pressure remained high for a few weeks, then populations declined quite rapidly.



Map of Locust pressure areas 2016

## Disease

## Ratoon Stunting Disease (RSD)

BPS staff undertook a very large RSD survey this year, with at least one block on every farm being tested. Part of this extra testing was supported by SRA who were trialling a new testing and sampling procedure. The new method under trial is based on a more rapid, accurate and sensitive testing procedure (PCR - polymerase chain reaction), when compared to the current industry standard ELISA test. While the new sampling and analysis procedure is being tested, BPS will rely on the current industry standard ELISA. BPS hopes that the new system will be in place for sampling in 2017 as it will allow us to sample more blocks across the district in a shorter period of time with a more sensitive test.

During the testing phase, three single point RSD samples in two distribution plots came back with an uncertain RSD result from the SRA laboratory. BPS took the precautionary step of temporarily closing two of its distribution plots based on these results until a more certain result was available. Immediately upon receiving the uncertain result, BPS staff collected over 400 further RSD samples – every row of plant cane at both ends of the plots was sampled, along with intensive sampling down the rows that had returned uncertain results.

SRA pathology staff gave these samples top priority and we then received notification that the uncertain results were false positives (this means RSD was NOT detected in the samples), which does occur from time to time. BPS would like to thank SRA for all their assistance and very prompt processing of samples. BPS decided that precautionary closure of both plots was the lowest risk approach while the further samples were being analysed. We regret any inconvenience this may have caused, however thank members for their patience and ongoing support.

SRA pathology staff reviewed BPS' plot management procedures and RSD testing protocols and we are happy to report that all appropriate procedures and precautions are being undertaken by BPS. I would also like to take this opportunity to thank all plot holders and managers for their cooperation.

An improved protocol for planting of plots has been developed with the following:

- Sinker to be used as a fungicide on all plantings
- The following to be completed at each variety change when planting plots
  - o If fungicide dips are used, they are to be emptied
  - Ensure a water truck or washdown facility is available and wash down planter, harvester and haul out with water
  - o Sterilise planter, harvester and haul out



Mark Rickards expressing juice for RSD sampling

## Smut

Smut is still a disease of concern to the region. Some blocks of Tellus and Q252 (rated as intermediate) were found in the last 12 months with heavy infestation. In some cases, blocks of Q208 (rated as intermediate/resistant) near the heavily infested blocks also showed varying degrees of smut. SRA pathologists have met with BPS staff throughout the year to discuss the best way to manage smut in our region. The degree to which smut will affect cane depends on a range of factors including variety resistance or tolerance, environmental conditions (drier conditions favour smut) and spore loading. With drier conditions prevalent over the last year, this is one factor contributing to the increased smut pressure. BPS suggests all growers consider their own risk profile, as well as how their variety selection may affect spore loading in the region.

Smut was found in Q252 in all Invicta plots during the last 12 months, and the decision was made to plough this variety out of the distribution and mother plots, so as not to increase spore loading in the plots. It must be noted that this infection came from smut spores transported by the wind during the growing season, and there is little the plot owners can do to manage wind borne spores. This variety has since been removed from those plots and no other varieties appear to have been infected. Please note that the reason Q252 has been removed from the plots, is so as not to put extra pressure on other intermediate varieties such as Q208 and Q183. BPS is not suggesting that growers plough out Q252.

## Yellow Canopy Syndrome (YCS)

BPS in partnership with SRA, have been working on a YCS Management Trial on a farm in Home Hill. The objective of this trial is to explore treatments that may affect the prevalence of YCS in sugar cane. In total there are twelve treatments with three replications of each. The plots are each 6 rows wide and ten metres in length. Most of the treatments had to be applied by hand and some treatments needed to be re-applied on a monthly basis.

The treatments are as follows:

- Control (Normal Practice)
- 6ES + 50% ( N,P,K,S)
- Mill mud
- Confidor Guard
- Seasol (seaweed)
- Gypsum
- Silica
- Rainox (sunscreen)
- Bactivate
- Compost
- · Salicylic acid
- Tissue Culture



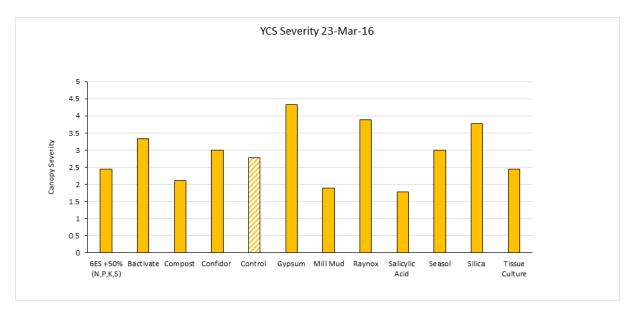
Applying mill mud at the YCS trial

A strict monitoring protocol commenced on the 9th December 2015 and continued on a weekly basis. The canopy, middle and the lower sections of each plot is assigned a rating from 0-3 depending on the severity of YCS present in the plants.



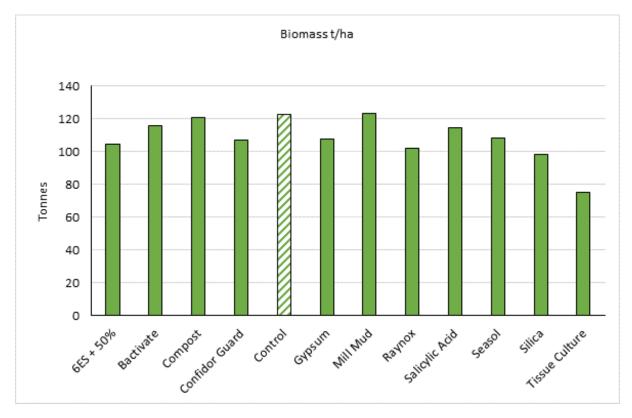
Applying gypsum at the YCS trial

Monitoring of the trial showed no statistical difference in the severity or prevalence of YCS when averaged over the whole canopy, suggesting that the treatments are not an agronomic solution to managing YCS.



Graph of YCS severity over the season from weekly monitoring

The plots were hand sampled for fresh weight biomass in June, with no biomass (yield) increase obvious in any treatment over the control – while there is variation, none of it was statistically significant, and therefore could not be attributed to the treatment.



Graph of fresh weight biomass from each of the treatments

# **Projects and Extension**

BPS is involved in a number of externally funded projects that align with our strategic plan. Through these projects, BPS continues to fill the gap in one on one extension and provide support to growers on a range of issues such as irrigation, harvester speed, nutrition, water quality, soil ameliorants and BMP. BPS acknowledges and greatly appreciates the financial support from the organisations providing funding.

# **Reef Programme**

NQ Dry Tropics have funded BPS to undertake extension activities under the Federal Government's Reef Programme. These activities include funding for shed meetings, farm walks, training and one on one extension – these are conducted in partnership with Farmacist who are also funded under the same program. Shed meetings have become a focal point for extension in the region, with 53% of growers attending the most recent round of shed meetings in early 2016. Feedback from those that are attending shed meetings is that the information presented is highly valued, along with the opportunity to discuss a range of productivity and profitability issues. BPS encourage all growers to attend their local shed meeting, and please inform staff if you have any topics you would like presented.



Rob Milla discussing variety specific nitrogen requirements at a Pioneer Shed Meeting

## Rural Water Use Efficiency – Irrigation Futures – Funded by DNRM

The Rural Water Use Efficiency – Irrigation Futures project is a state wide project funded by DNRM. The aim of RWUE-IF is to assist irrigators to make better use of their irrigation supplies. In the Burdekin the project consists of extension support to growers; financial incentives for practices that improve irrigation efficiency and reduce losses to groundwater; and the installation of bores to reduce groundwater levels in identified areas.

Between April 2015 and March 2016, ten growers applied for and were successful in receiving funding under the financial incentives scheme (FIS) for projects that will lead to a reduction in irrigation losses to groundwater. These projects had a combined value of \$440 120 with \$203 222 being provided through the FIS. All of the growers who have completed projects have reported improvements in their irrigation management which will lead to improved irrigation efficiency.

Bores are being installed in areas that have been identified as having an accelerated rate of groundwater rise. The aim is to reduce or reverse the rise of groundwater through pumping and reuse. In 2015 three bores were installed in the Upper Haughton area to complement the five that had already been installed in the Mulgrave area. From April 2015 to March 2016, 725 ML was pumped and reused for irrigation.

Extension support is available to all growers. Along with general irrigation advice, other BPS activities have included: pump flow testing; irrigation event monitoring using SISCO; and the installation of soil moisture probes. The soil moisture probes have been installed in three representative soil types to provide growers with a better understanding of the dynamics of soil moisture movement and how and where crops extract water. The probe information can be accessed via the BPS website.

## Harvesting Grower Group Innovation Project – Funded by SRA

The harvesting speed trial was instigated as a result of grower feedback at shed meetings in 2013. There are two components to the trial, one is to determine the effect of harvesting speed on ratooning and subsequent yield, the second is to quantify the effect of speed on economic factors. The trials commenced in 2014 at six sites, four in the BRIA and two in the Delta. All sites were plant cane, to ensure that any effects of speed that were noted were as a result of the trial treatments, not existing harvester damage.

## Effect on ratooning and yield

In 2014, crop size and to some extent ground conditions, limited the ability of the drivers to consistently maintain higher speeds. Thus, for most sites the treatments were 5, 7 and 9 km/h; the exceptions were site one where the treatments were 5 and 7 km/h and site six where the treatments were 7, 9 and 11 km/h. Analysis of the plant cane results showed no effect of harvester speed on crop yield, or on the number of stools and gaps after harvest.

The first ration crops were harvested during the 2015 season with some changes to the treatments (harvester speed). These treatments were changed to 6, 8 and 10 km/h at two sites, and 7, 9 and 11 km/h at three sites. Site one remained unchanged.

The harvest data showed no obvious effects of harvesting speed on the first ration yield, though at all sites variation across the block is evident. That is, at each site plots that had higher yields in 2014, also had higher yields in 2015. The changes in treatments between the 2014 and 2015 seasons presented some challenges for the statistical analyses.

Although the statistical analyses were largely inconclusive, there was some suggestion that the speed in the plant crop did influence the yield in the first ration. This was based on an analysis of sites 2, 3, 4 and 5 which all had the same treatments applied in the plant crop.

For the upcoming (2016) harvest the treatments will be the same as in 2015. This will provide for much better data analysis, and should give a true indication of the effect of speed on rationing and subsequent yield.

To determine the effect of speed on rationing counts have been done of the number of shoots, stools and gaps in a marked 10m section of each treatment plot. These counts have so far not shown any effects of speed on rationing or damage levels.

## **Economic impacts**

Data for an economic analysis has been collected at each site and has been analysed by DAF economists. The trends were the same in both seasons and showed that costs per tonne decreased as harvesting speed increased. However this response was non-linear, with costs decreasing at a greater rate when moving from 5 km/h to 7 km/h than they did when moving from 7 km/h to 9 km/h. Above 9km/h the results were less consistent. At some sites they continued to decrease, while at others they flattened out or increased, probably due to the interactions between speed, time spent waiting and fuel consumption.

BPS would like to thank the participating growers and harvesting crews for their patience, and SRA and DAF for conducting the statistical and economic analyses.

### **Smartcane BMP**

The Department of Environment and Heritage Protection has funded Canegrowers to implement the Smartcane BMP program. Canegrowers have subcontracted BPS to deliver important parts of the Smartcane BMP program. BPS acknowledge that the Smartcane BMP program will deliver productivity and profitability gains for Burdekin growers. Improving record keeping, nutrient and weed management plans, irrigation efficiency and adopting new technologies are all key areas where BMP will improve grower's productivity and profitability.

Terry Granshaw joined BPS in March 2015 as an extension officer and the BMP facilitator for the Burdekin. There are now 192 Burdekin growers registered in the Smartcane BMP program, this equates to 40 900 Ha of sugarcane land. Of this area there is 38 000 Ha, or 186 growers who have completed self-assessments in the three key modules (soil health & nutrient management, irrigation & drainage, weed pest & disease management). The Burdekin now has 20 growers accredited in the three key modules which accounts for approximately 7000 Ha, which is more than any other district in Queensland. Terry currently has 40 growers who are working towards becoming accredited in the three key modules.

Terry has been assisting SRA's Belinda Billing with the coordination and facilitation of Smartcane BMP training in soil health, irrigation, weed management, harvest management and work place health and safety. Terry has facilitated many Smartcane BMP self-assessment group workshops, as well as assisting with Irrigweb training, a program that improves growers irrigation practices and links itself to the BMP irrigation module. General extension advice on irrigation pump flow tests, band spraying set up, nutrient application and precision agriculture are all steps that help growers on the way to achieving accreditation. Terry has also assisted the CANEGROWERS Smartcane BMP team by suggestions that streamline the process of getting a grower accredited whilst maintaining a strong robust industry led program

Additionally the BMP program recently sponsored a trip for a group of Burdekin growers to Mareeba to attend the MSF Farm open day. This day was a showcase for MSF's BMP accreditation and gave the growers an opportunity to see different irrigation (drip and overhead) and farming systems.

BPS encourages all growers to become involved in the Smartcane BMP program in order to review your farming system against industry standards as well as demonstrate to the larger community and government that we can self-regulate as an industry.



## Project NEMO - Nitrogen use Efficiency Management On-farm

Project NEMO is a project jointly funded by the Federal Government's National Landcare Programme and the Queensland Government's Department of Natural Resources and Mines. This project aims to work with growers to improve on farm nitrogen use efficiency and management for improved productivity, profitability and water quality outcomes.

This project has overseen the establishment of four nitrogen product, rate and timing demonstration sites and seven soil amelioration (gypsum and lime) rate and product demonstration sites, which will be harvested for the first time this year. Results will be shared as they become available.

Two real time water quality monitoring sites have also been established, working with growers in two sub-catchments to monitor nitrate loads of runoff and identifying on farm practices that can be improved to reduce nitrogen losses. This year, this work is expanding to include two end of paddock samplers which will be used for block scale monitoring and comparison of runoff from different

management practices. Findings to date have been shared with other growers through shed meetings, one on one discussion and industry forums such as the BPS Showgrounds meeting.

Anyone who wishes to have their water tested for nitrate concentration can provide BPS with a water sample, which will be processed through the monitoring trailers.



Running samples at the real time water quality monitoring trailer

# **Other Activities**

BPS currently has ten variety strip trials established across the region on representative soil types. These trials are established once BPS has enough volume of cane of new or potentially promising varieties to plant in commercial strips. These trials will assist growers in deciding on the suitability of new varieties on their farm, as well as provide replicated data on which BPS staff can base recommendations. For example, the variety SRA8 which will be available for purchase from distribution plots in 2017 will have three years of trial data at some sites prior to growers planting their seed source.

Four trials established in early 2016 included:

Stockham Rd/Mulgrave Q240, Q208, Q232, Q253
 Upper Haughton Q240, SRA8, Q183, \*KQ08-2180,
 Fredericksfield Q240, SRA8, \*KQ08-2180, Q232, Q253
 Aerodrome Q240, SRA8, \*KQ08-2180, \*QA07-2330

Note: Varieties marked with \* are currently experimental and not yet released.

BPS believes it is important to trial the new varieties in commercially managed situations and to allow growers to see them growing outside an approved seed plot where farming practice is such that growth is restricted to ensure a high quality seed source. BPS appreciates the assistance of SRA, particularly Catherine Kettle, in providing these varieties for trial use.

**Nitrogen rate trials** – BPS has two Nitrogen rate trials with Q253, as anecdotal evidence has suggested this variety may have a high nitrogen use efficiency. Replicated trials have been established in plant and ratoon crops to provide growers with data.

**Potassium Trials** – two potassium rate trials have been established in the Pioneer area amid suspicions that cane productivity may be enhanced with higher rates of potassium. Results will be obtained this season and communicated at shed meetings.

BPS continues to assist in grower led trial work across all aspects of the cane production system. If anyone is interested in having a trial on their farm or needs help designing or harvesting a trial, please contact the BPS extension staff. BPS also offers soil and water testing services as well as agronomic, pest, disease and whole of farm advice. Please contact the office for more details. Results from all trials are published in our quarterly newsletter and discussed in detail at field walks and shed meetings.

## **Burdekin Next Gen Update**

BPS acknowledges that the next generation of farmers are the future of our industry. As such, we have secured \$18,500 in funding, through the Landcare small grants scheme, to support the activities of the Burdekin Next Gen group.

This is an open group, established following the Step Up Next Gen conference in 2015. It is intended as a hub for accessing contacts, information, training opportunities and social connections. To date, this group has held information sessions on succession planning, soil mapping, mixed species fallows and getting the best from your GPS. As well as field walks looking at incorporating rice fallows into cane rotations and workshops on soil health and soil test interpretation.

This is an open group, made up of people who are involved in the sugar industry. Most activities are hinged around social information sharing and include workshops, information sessions, guest speakers and bus trips. If you are interested, let Tiffany know and she will add you to the mailing list to notify you when events/activities are coming up. If there are topics you want to know more about or there are activities that you are interested in, let us know, your ideas and contributions to the group are very welcome.

## Barratta Creek Project - Funded by Wetland Care Australia

Wetland Care Australia has contracted BPS to provide support for their project "Delivering Biodiversity Outcomes for the Barratta Creek Catchment". This project aligns with BPS pest control activities such as collecting pest damage information from growers in our annual crop data survey as well as various pest survey activities. BPS' main responsibility under the project is to establish and maintain a database of pig crop damage, record feral animal numbers at project monitoring sites and conduct aerial shooting of pigs.

### **Future**

BPS will continue to provide high quality services to all its members. BPS remains focused on delivery of approved seed cane, pest and disease services and extension support. BPS is increasing its management strategy of RSD, with increased measures being undertaken at plots to minimise risk of disease transmission such as use of Sinker as a fungicide and extra washdown and cleaning implemented during plot plantings. Staff will also undertake RSD sampling on every farm, focussing on the block where infection is most likely i.e. older ratoons of susceptible varieties. A large pachymetra survey will also be conducted in late 2016.

BPS will continue to be involved in projects and programs that align with our strategic plan. There is increasing pressure on the industry from community and government in relation to farm runoff into the Great Barrier Reef Lagoon. BPS sees its role as one where we assist farmers to operate at best practice through good pest and disease management and one on one extension; conduct field trials and demonstrations of practices that will give both environmental and productivity or profitability gains; and work with other industry and government organisations to promote the achievements of our local industry.

BPS is a grower owned, not for profit organisation, we urge all members to make best use of the services available, and to contact the directors or management if you have any questions, concerns or suggestions.

## **Staff and Directors**

I would sincerely like to thank the staff for all their hard work and dedication during the 2015/2016 financial year. The staff are a credit to themselves in the way they conduct their day to day activities and always ensure our members best interests are first and foremost. The BPS team has a broad range of experience and expertise and I hope to continue to provide the best possible service to our members with the support of all the staff and directors. The Directors have also provided solid guidance and support over the last year, and ensured that the organisation has continued to operate in line with the strategic plan and in the best interests of our members.

I would like to acknowledge Peter McDonnell's contribution as a director and wish him all the best, as well as welcome Mark Vass as a new director in 2016.

Rob Milla

Manager

August 2016