



Funded by Burdekin Cane Growers and Wilmar Sugar

ANNUAL REPORT

AND

FINANCIAL STATEMENTS

1 APRIL 2017 – 31 MARCH 2018

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Chairman's Report

This report covers the period from 1st April 2017 to 31st March 2018. I wish to thank all fellow directors for their efforts during this time as the company continues to evolve and expand into the extension services space whilst remaining committed to core pest & disease services, sound corporate governance and secure fiscal planning.

An important additional strategic goal has been included in the BPS Strategic Plan 2018-2020 which aims to trial and evaluate technology with potential benefits, then facilitate adoption by our members once efficiency gains have been proven.

Boards must think strategically and the board of BPS has set 6 clear strategic goals that they intend working toward so that the value of BPS membership is enhanced without increasing levies.

Directors and Board Meetings

Six regular board meetings and one special meeting of directors were held during this period. There was an 86% director attendance at these meetings. The Company Secretary has ensured that meeting papers were prepared and minutes recorded for each of these meetings. Directors also represented BPS on numerous other occasions during engagements with industry stakeholders. All directors are thanked for the time taken in performing their duties.

Board Structure

The board for this period consists of the following directors:

Grower-elected Directors	-	Mr Chris Hesp (Chairman), Mr Bryce Davies, Mr Mark Vass
Wilmar-appointed Directors	-	Mr Peter Larsen, Mr Lee Danello, Mr Ian Davies
Company Secretary	-	Mr Mark Rickards

Management and Staff

The importance of pest & disease control has not diminished and remains the primary objective of the company. BPS has a very capable group of field staff who are committed to delivering a sound and reliable service to members. Generally, these officers are the first point of contact when a member encounters a problem with their crop or requires advice on any other farm related matter. Training of field officers is regularly updated to ensure they stay abreast of industry related pest and disease issues. Thanks goes to field officers Dave Paine, Ashley Taran, Ray Hildebrandt & Brendan Arboit who collectively possess a wealth of experience between them and have assisted with the development of trainee field officer Madeline Molino. Ray Hildebrandt retired in December, 2017 after 35 years of service to both BPS and Inkerman Pest & Disease Control Board. Congratulations Ray.

Participation in government and industry funded projects consequential to members interests, has led to the bolstering of agronomic expertise within the ranks of BPS. Manager Rob Milla heads a

well-balanced team of agronomy staff that includes two other very capable and experienced officers, namely Marian Davis (Agronomist) and Terry Granshaw (Extension Officer), as well as two trainee agronomists in Cherrie Johnson and Jasmine Connolly who are receiving valuable tuition from their knowledgeable peers.

Cherrie Johnson replaced Tiffany Hunt who was also a valuable member of this team until her resignation in May 2017. We thank Tiffany for her contribution to BPS. Cherrie is studying externally to complete an Ag Science degree at Uni of New England as well as working full time, which is quite an effort.

Jasmine Connolly has been employed to assist Terry Granshaw with SmartCane BMP program and also lead in the Enhanced Efficiency Fertilizer project. Jasmine has completed a bachelor's degree in science from James Cook University.

The increase in extension capability has proven invaluable to those members who have taken advantage of additional services on offer. Growers are encouraged to seek advice from BPS agronomy staff and field officers whenever required as their services are paid for in your 7c/tonne levy deduction.

The board thanks both Rob Milla (Manager) and Mark Rickards (Commercial Manager) for their operational organisation of the company over the past twelve months. They have ensured that the objectives set out in the strategic plan have been met.

Rob Milla has now completed five years in the manager's role. He has ensured staff remain focussed on delivery of BPS core business including crop data collection, distribution of approved seed cane and all other aspects of pest & disease control. He leads our extension team and has been very active in liaising with stakeholders, government departments and other agencies to ensure our member's interest are represented fairly.

Rob is supported by Mark Rickards Commercial Manager who is in charge of finance while ensuring the business remains compliant with the ever increasing regulatory requirements. He is responsible for overseeing the field staff in all general BPS activities including Workplace Health & Safety. Mark also performs the additional role of Company Secretary, this is quite an onerous and extremely important position. I commend both Rob and Mark for the way in which they manage their duties.

Study Bursary

Good agronomic advice is crucial when maintaining and improving production on farm. In recent times, it has proven difficult to fill positions at BPS in the agronomy field, so the board has made a conscious decision to promote the entry of local high school graduates into tertiary study of agricultural science through a bursary program. The BPS Study Bursary program is designed to encourage one local high school graduate every year to study agricultural science at a tertiary institution of their choice, then reward them with financial assistance for successful completion of required subjects each semester. Our desire is for these students to graduate, then return to the district to work in the sugar industry. Brendan Montafia, the first beneficiary of the BPS Study Bursary, is currently completing an Ag Science bachelor's degree at University of Queensland, Gatton campus. He has been joined by the latest bursary beneficiary, Caleb Milan who commenced studies at the same university earlier this year. We are pleased to report that both these young men are progressing successfully in their respective courses.

Strategy & Direction

The strategic plan for years 2018-2020 has commenced. Although many of the functions of BPS will remain the same, the business needs to assist members meet an ever changing environment within the sugar industry. BPS will continue to assist their membership to achieve compliance at government level in the best way possible without losing focus on the district's ultimate goal of 19ts/ha & 9 million tonnes of cane. A profitable and financially sustainable local industry are key drivers in this new plan.

In developing the 2018-2020 BPS Strategic Plan, the board used information gathered from consultation with members and other stakeholders to identify 6 strategic goals and develop various enabling strategies to reach the milestones. The 6 strategic goals are:

1. Minimise Pest & Disease through seed cane supply & crop monitoring
2. Deliver a wide-ranging extension service to members
3. Participate in Industry & Governmentt funded projects that deliver value to Growers & Millers
4. Admin practices based on sound corporate governance & secure fiscal planning
5. Develop It systems to enhance the collection, storage & communication of data
6. Adoption of new technologies to advance industry efficiencies

While these strategic goals remains similar to the previous Strategic Plan, the adoption of item 6 (new technologies to advance industry efficiencies) is an exciting addition that has the potential to drive productivity and profitability gains into the future.

Cash Reserve

The company's assets have grown substantially in the past 5 years and as a result BPS has a sizeable cash reserve. These funds remain the property of the members and it is the board's intention to preserve sufficient cash in reserve so that BPS can remain operational if opportunities for alternate sources of income diminish or some catastrophic event requires the reserve to be drawn upon or an opportunity presents that will create further value to members. In any case it is remains a valuable liquid asset of the company.

Seed Cane Plots

It is important for us to acknowledge the necessity of our seed cane distribution system and the role that it has played to ensure that the Burdekin District remains a mostly disease free cane growing area. This seed cane system our members support is widely regarded as the best in Australia and with average sales of around 6000 tonnes of treated cane on an annual basis, it is also the largest.

A lot of effort goes into producing a tonne of seed cane for distribution to our members from hand cutting, treating, propagation, cultivation, through to it being harvested and delivered to individual growers. I sincerely thank all those people who are involved in this process including the plot owners, plot managers, harvesting and hauling crews, planting contractors, field workers and BPS personnel. We are dependant as a district, on this valuable source of treated cane.

Summary

As the 2018 harvest progresses, it is evident that cane supply tonnage will be less than originally anticipated, even though there was a timely finish to the 2017 crush. This shows that there are many variables at play when producing a crop of sugar cane. Weather is one we have no control over. There are however, many other contributing factors that can be controlled and the Board, management and personnel at BPS are ready and willing to assist their members.

I urge all members to take advantage of the many services available to them from BPS to maximise their productivity, profitability and sustainability.

Bryce G. Davies

Chairman

14th August, 2018.

Manager's Report

BPS continued to strive to deliver practical and productive services to all members during the 2017/2018 financial year. Crushing results for the 2017 season were 8.12 million tonnes crushed at a district average of 118 tc/ha and CCS of 14.0. While there were challenges faced during this season, members should be congratulated for the emphasis placed on optimising productivity, profitability and sustainability on each of their farms and the region.

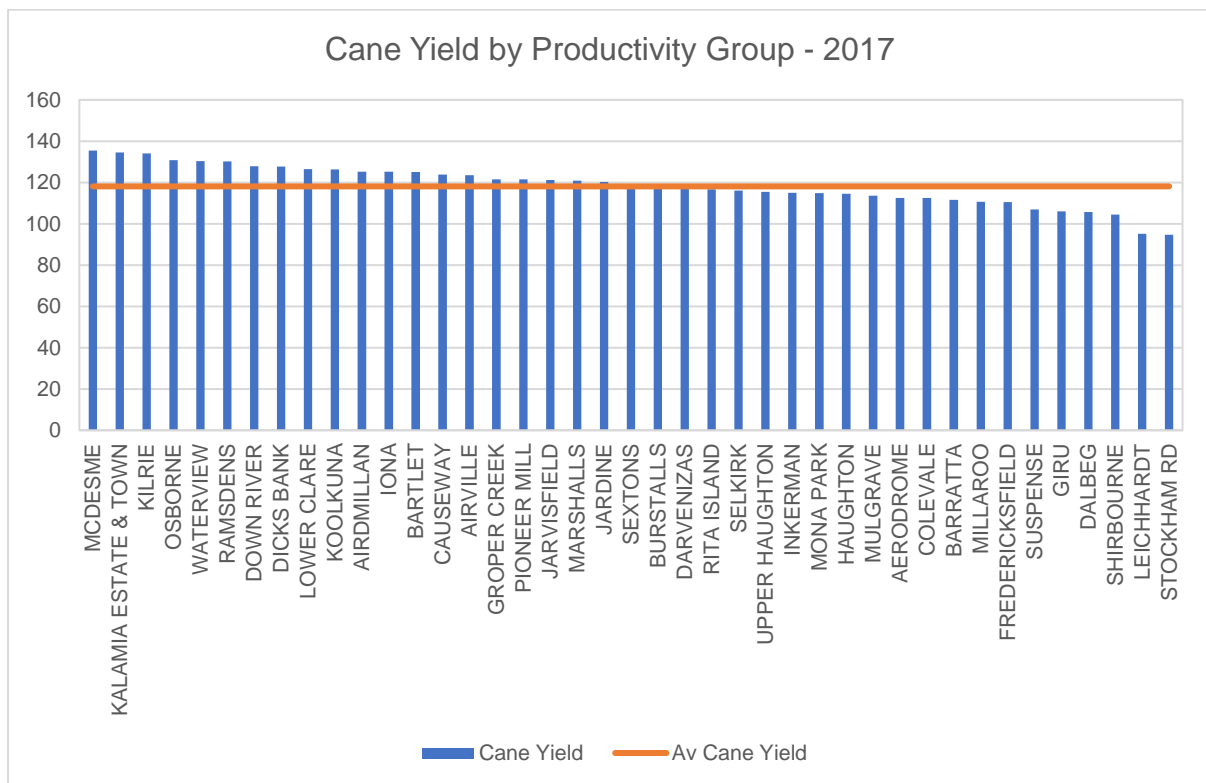
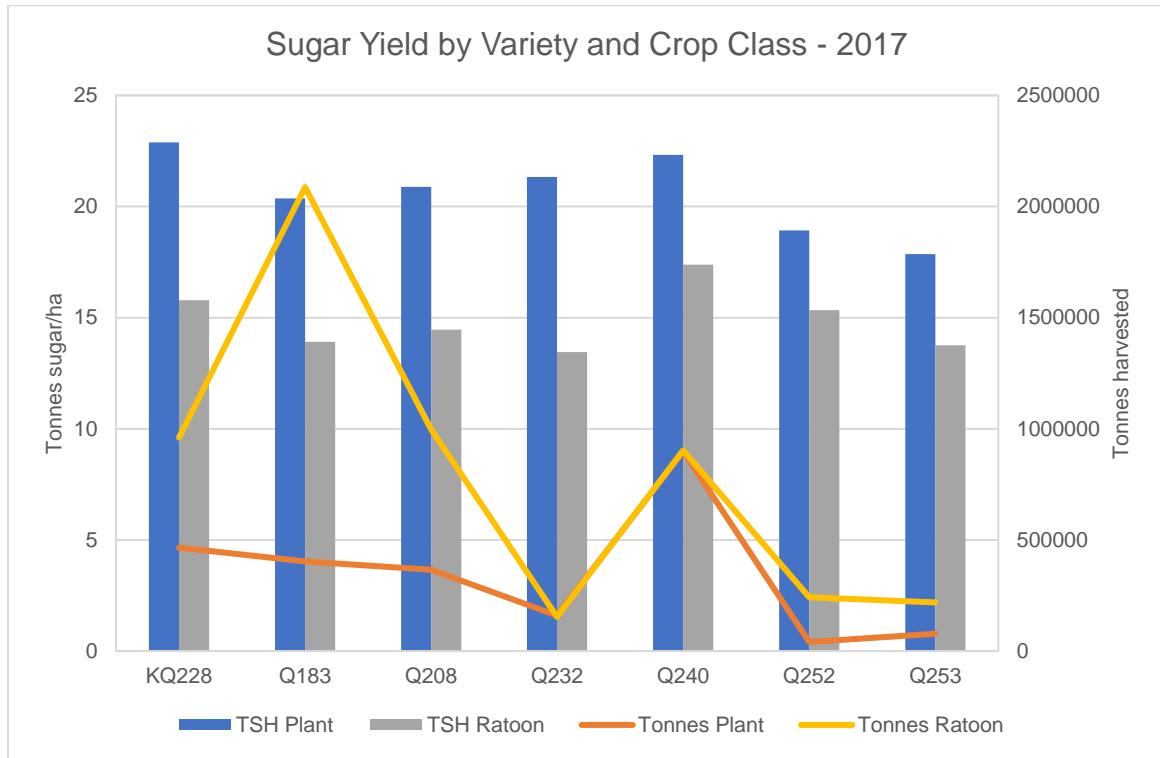
Approved seed cane sales decreased from the 2016 sales of around 6400 T down to 4250 T for the 2017 season. Levels of Ratoon Stunting Disease (RSD) continued to increase slightly which is concerning. Part of the increase in the number of RSD positive blocks may be a function of increased sampling by BPS staff. In order to manage this disease better, BPS have committed to testing at least one block on every farm in the region. Pest damage appears to have increased overall when compared to the previous years figures, with pigs, coots and rats having the highest increase. Wallabies and pigs have been reported by members to be causing the most damage across the district, and coots and rats also contribute to a significant number of tonnes lost to pests. Growers are encouraged to report all pest and disease issues and concerns to their relevant field officer, so that the damage can not only be recorded, but appropriate management strategies implemented.

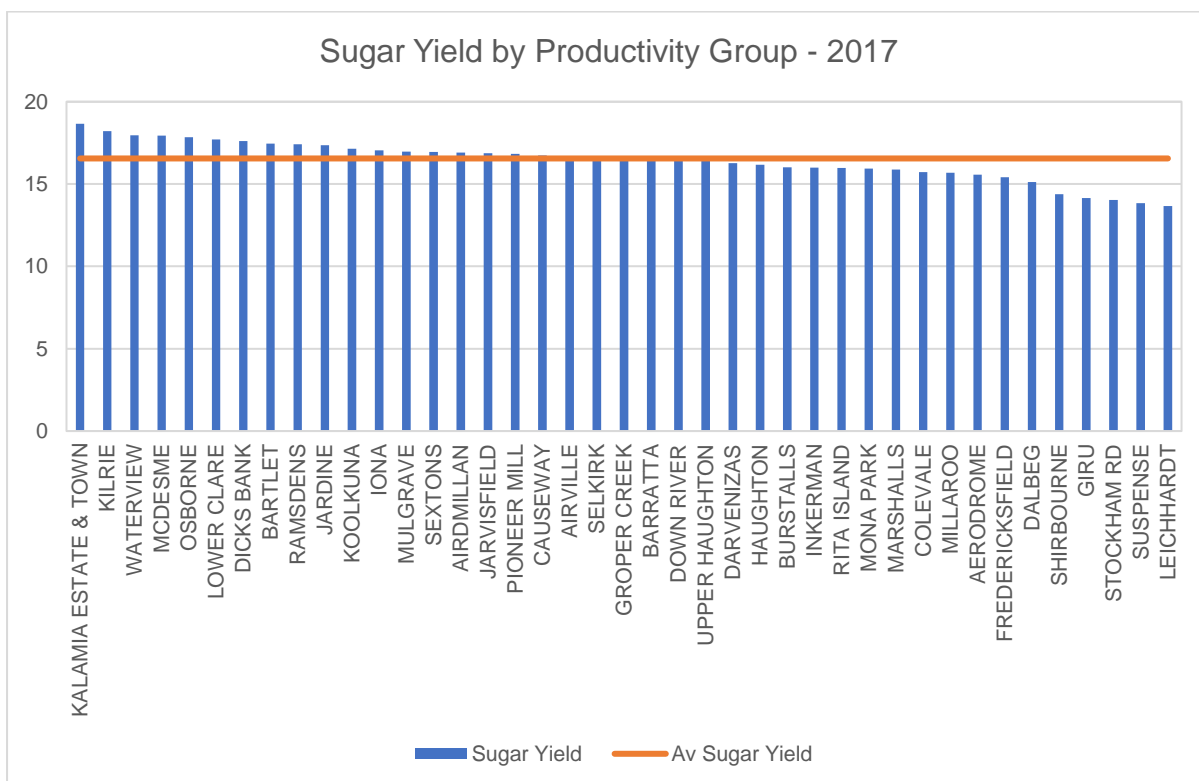
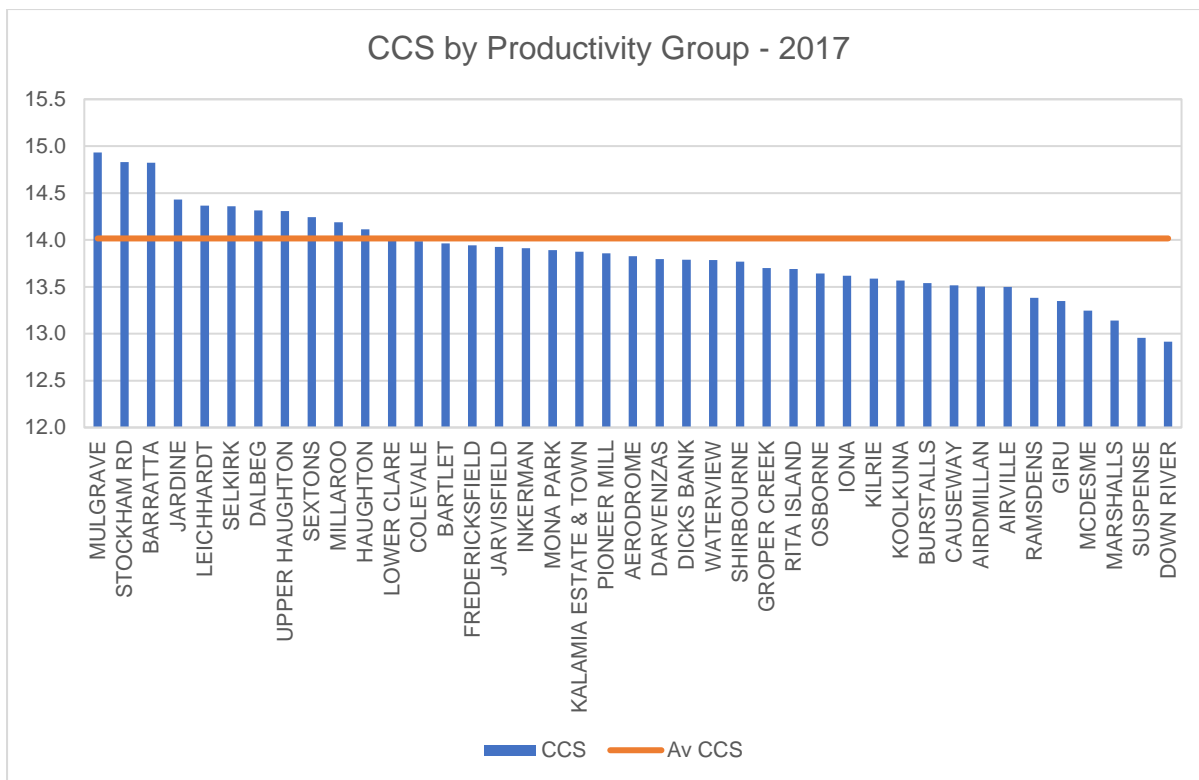
The BPS extension team harvested and established around 45 trials during the reporting period, largely around nitrogen management and varieties, with some work also exploring soil amelioration products and farming systems. A large proportion of this work has been funded through external sources such as NQ Dry Tropics, DNRM, Queensland CANEGROWERS, SRA and DES. BPS will source funding opportunities when they align with the BPS strategic plan and provide potential productivity, profitability or sustainability benefits for our members. There has been an ongoing increasing demand for independent soil test sampling and recommendations through BPS, and all members are encouraged to utilise this service. BPS has noticed an increase in other extension activities such as advice on soil amelioration, nutrition, weed control, legume cropping, irrigation and farming systems. It is encouraging to see an ongoing demand for Smartcane BMP services with around 287 self-assessed and 27 growers representing 11 350 Ha accredited.

Another increasing area of activity conducted by BPS has been machinery inspections when moving implements between Biosecurity Zones. This often time consuming task is critically important – if machinery was moved between districts with no consideration for removal of soil or plant material, the risk of spread of pests and diseases would be significantly increased. Please ensure that you contact BPS prior to moving any machinery out of the district, and ensure that any purchase of machinery from other districts comes with an inspection certificate.

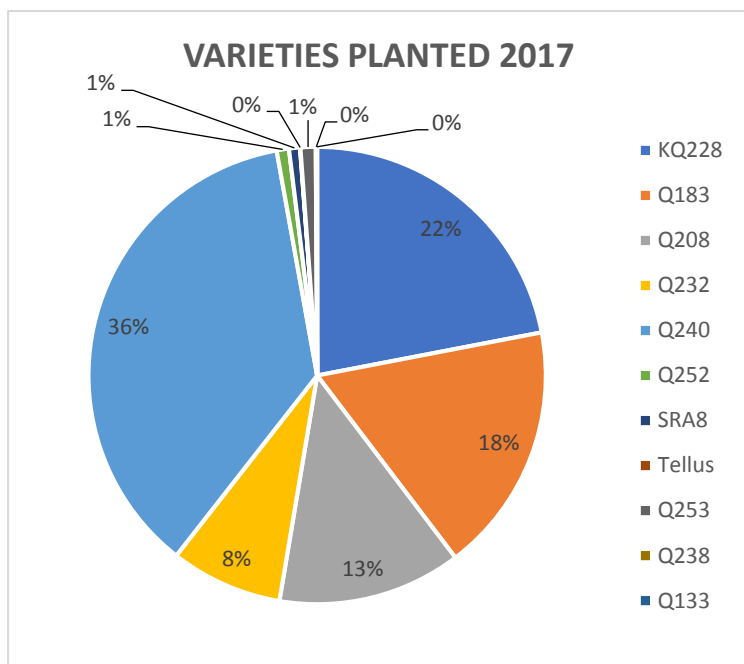
Productivity Results From 2017 Season

The following are a summary of variety and productivity data from the 2017 season, data supplied by Wilmar.



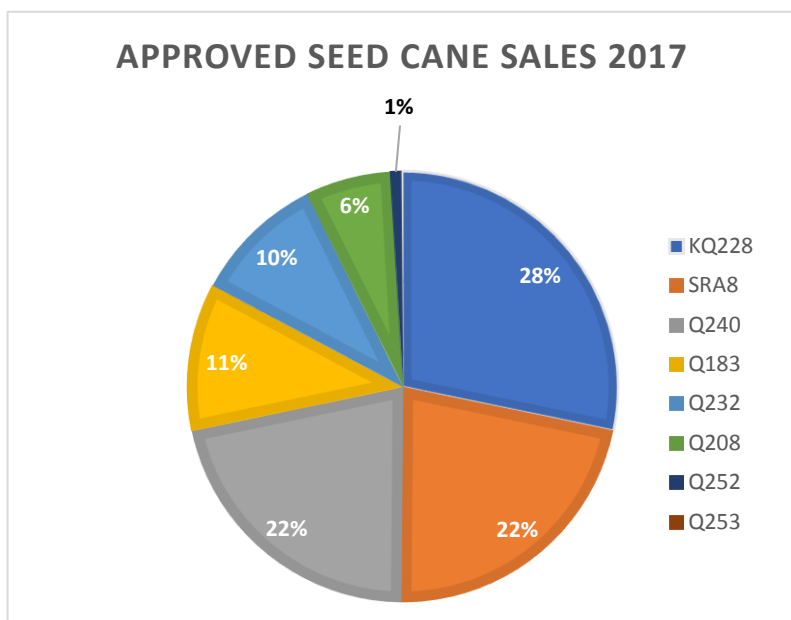


Area and Percentage of Plant Cane 2017



Variety	Area Planted (ha)
Q240	3569
KQ228	2144
Q183	1725
Q208	1265
Q232	773
Q253	105
Q252	84
SRA8	76

Tonnes of Approved Seed Cane 2017



Variety	Tonnes Sold
KQ228	1198
SRA8	928
Q240	916
Q183	471
Q232	418
Q208	272
Q252	33
Q253	5
Experimental	12
Total	4253

Approved Seed Cane

Sales of approved seed cane decreased significantly from the 2016 season from 6400 T to 4250 T this year. We would certainly like to see an increase in uptake of approved seed cane in future years, as this is one of the cornerstones of a well-managed farming system. We also need to ensure our plot owners remain viable through the sale of seed cane. The mix of varieties purchased for approved seed cane is quite good from a district wide perspective of managing risk. KQ228 and Q240 were by far the dominant varieties, with Q183, Q208 and Q232 all having similar quantities. While sales of SRA8 were high, many growers have indicated there will be limited plantings of this variety due to some concerns around smut. In order to manage risk, it is best practice to ensure a mix of varieties across a district (and on your farm) in case of a pest or disease pervasively affecting one particular variety. All members are reminded that regular purchase and use of approved seed cane remains a foundation of a well-managed farm. It is always a challenge for BPS staff to accurately predict demand for each variety of approved seed cane, so with limited area available, it is important to communicate with your field officer your requirements for future years seed cane orders.

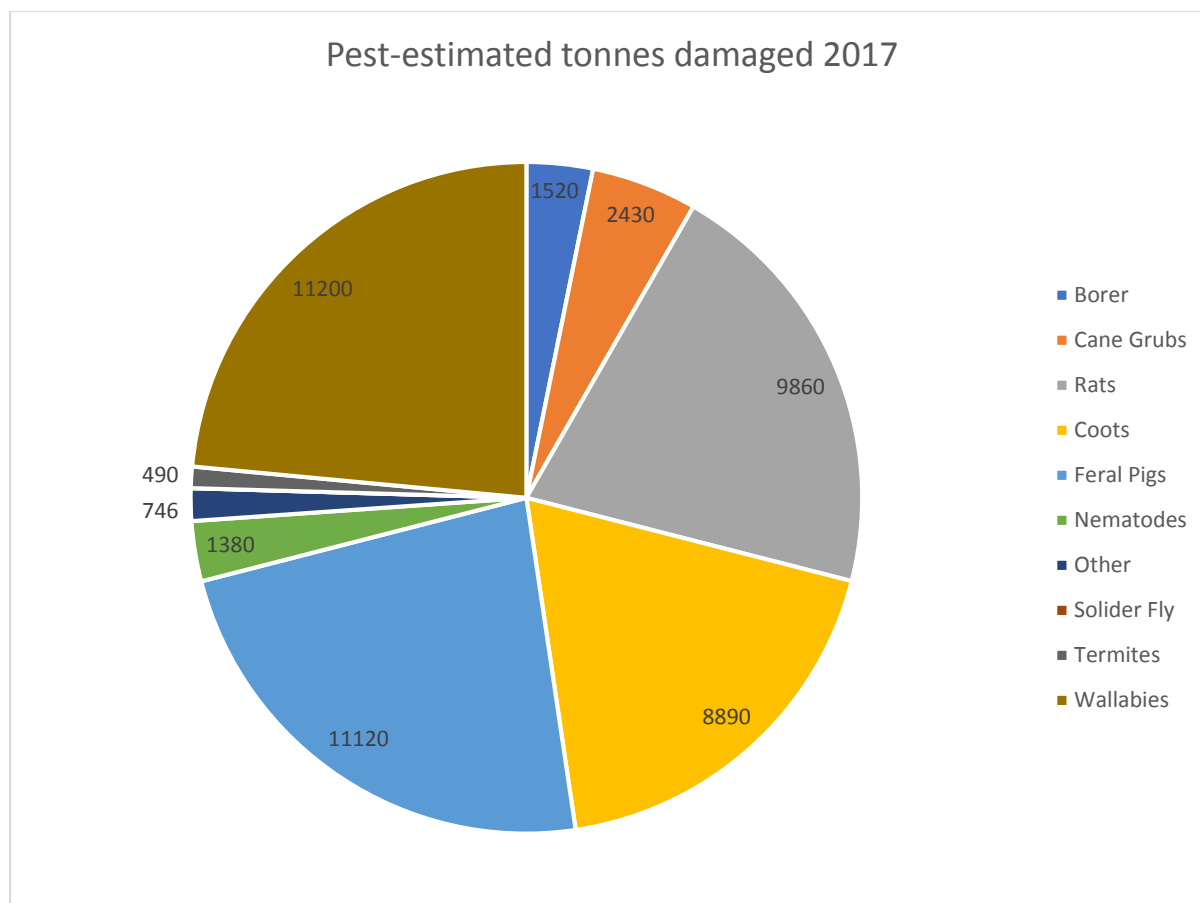
Mill Area	Plot	Tonnes sold	Total Tonnes For Mill Area
P & K	Whitson's	2170	2211
	Duncan	41	
Inkerman	Klaka Rd	967	1260
	Swindley	293	
Invicta	Giru (Lyons)	456	782
	Millaroo (Cervoni)	7	
	Clare (Rapisarda)	26	
	Brock Rd (JJB Farming)	293	
Total		4253	4253



Image: Approved Seed Cane being harvested from P&K Farm

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, although this year there was a significant increase in damage caused by both coots and rats. The graph shows total tonnes damaged by each pest across the Burdekin region. It is important to note that the tonnes damaged are estimated, based on information supplied to field officers by growers.



Pest	Tonnes Damage 2016	Tonnes Damage 2017	\$ Damage at \$40/T
Wallabies	11 520	11 200	\$448 000
Pigs	8 220	11 120	\$444 800
Coots	5 616	8 890	\$355 600
Rats	3 818	9 860	\$394 400
Nematodes	2 880	1 380	\$55 200
Weevil Borer	1 321	1 520	\$60 800
Canegrubs	973	2 430	\$97 200
Termites	702	490	\$19 600
Soldier Fly	400	100	\$4 000
Total	35 450	46 990	\$1 879 600

Canegrubs

Canegrub numbers reported by growers to field staff increased significantly this reporting period, more than doubling from 2016 reported damage of 970 tonnes to 2430 tonnes in 2017. This level is creeping up towards reported damage in 2015 which was around 3300 tonnes. Observations from both the May 2017 and May 2018 grub flights showed the greatest areas of grub damage were seen around the Haughton and Giru areas. Most Delta blocks around the Burdekin River did not have obvious damage when viewed from the air.

The two main products used for grub control utilise the same active ingredient – imidacloprid. There is a liquid product (Confidor Guard, Senator and others) that gives 12 month control, and suSCon Maxi Intel is a slow release granular product that can give up to 3 years control. Talk to the BPS staff about which product may be best suited for your farming system.

Imidacloprid products have quite specific label guidelines, and there is considerable evidence that if these guidelines are not followed, the product will not work. Please check the label of the product before use. BPS staff often are asked what is the maximum width of side dressing coulters when applying liquid based Imidacloprid products. The label states the coulters should be NO WIDER than 500mm apart; the depth of application should be 100-125mm; and that at least 100 mm of soil should cover the band.

It is extremely important to be mindful of the fact that imidacloprid levels in runoff water and underground water sources are being closely monitored. As a result all growers are reminded to only use grub control products if there is a risk of grub pressure and to follow the application guidelines on the labels to minimise off site movement. This will ensure that we have these products available to us in the future.

SRA are undertaking research in two related areas. The first project, which commenced in July 2017, is investigating the potential loss pathways of these products as well as trialling practices which might minimise the loss of imidacloprid into the environment. In the second project, SRA researchers are looking at alternative insecticides for control of canegrubs. As this research is ongoing, it may be many years before alternatives become available, emphasising the importance of using the current products responsibly to not risk losing them.

Pigs

Levels of pig damage reported by growers in the 2017 season increased by approximately 35% from the previous season. Although the 11 000 T reported in 2017 is still lower than the 20 000 T reported as lost to pig damage in 2015. 271 were shot through BPS' pig subsidy program during the reporting period.

Pigs have a significant impact on the local industry, so BPS will continue its aerial shooting subsidy for members – please contact your field officer on how to access this subsidy. BPS also offers a service to put out a food source (when this source is available) to pre feed and attract pigs prior to baiting by Burdekin Shire Council Pest Control Officers.

Itch Grass and Wild Sorghum

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.

One new block identified with Itch Grass was in Home Hill, as well as an area along the banks of Sheepstation Creek. Both sites were intensively rouged, sprayed and monitored. Levels along the banks of Plantation Creek decreased from previous years. Growers in previously high pressure areas around McDesme and Airville should be commended for ensuring fallows were kept very clean, and plant cane block inspected showed minimal to no signs of itch grass, whereas historically the levels were quite high in these blocks

If you observe an area of itch grass, please contact your field officer immediately so we can implement appropriate control measures.

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. BPS field and extension staff are available for all members to discuss weed management plans, particularly with those growers who have high levels of wild sorghum.

Disease

Ratoon Stunting Disease (RSD)

Ratoon Stunting Disease is a bacterium that is spread by infected juice or contaminated equipment or planting material. RSD can cause losses between 5% and 60%, although in a fully irrigated environment like the Burdekin region we are unlikely to experience losses at the high end of this range. Losses between 5% and 10% are very difficult to observe in a crop of cane, so it may be possible to have RSD on your farm and be unaware of it. BPS has significantly increased its focus on RSD monitoring and management over the last few years, and field officers have been very proactive in taking at least one RSD sample from every grower in the district. Normally, the oldest ratoon of the most RSD susceptible variety will be targeted for sampling.

Results from the 2017 sampling program showed that 27 blocks in the district tested positive to RSD. All approved seed cane plots were clear of RSD, and the positive samples were spread across the Burdekin region. Since the sampling was generally limited to 1 block per farm, it is likely the total number of RSD infected blocks in the Burdekin region is higher than 27. This is a slight increase from numbers recorded in 2016 – a contributing factor to this increase may well be the increased number of samples taken.

BPS has taken extra precautions during planting operations on its approved seed cane plots, such as extra washdown and cleaning operations, to further minimise risk of spread or contamination. All members are reminded that RSD is quite simple to control if the following 3 steps are addressed:

1. Regularly purchase and plant approved seed cane
2. Ensure fallows are clean and free from cane volunteers
3. Sterilise equipment that is capable of carrying juice or plant material.

At the time of writing this report (July 2018), initial results from the 2018 survey are indicating a further rise in RSD blocks, so it is critically important that members follow the above steps and contact their Field Officer for further advice on RSD management. It was also recently reported in the media that some approved seed cane plots in the Queensland sugar industry tested positive to RSD – no Burdekin approved seed plots had RSD detected after extensive surveys.

Smut

Sugarcane smut is a fungus that is primarily spread by wind blown spores or infected planting material. It is a disease that needs to be appropriately managed through variety selection on your farm and within the region. During the 2017 season, the few remaining blocks of Tellus were observed with numerous smut whips, along with some blocks of Q252 and SRA8 showing moderate to high numbers of smut whips. Of our current varieties, SRA8 and Q252 have an intermediate-susceptible rating for smut. If environmental and field conditions are favourable for smut, this could mean yield reductions could occur. An increased spore load in the area could also see pressure being put in the intermediate/resistant varieties such as Q183 and Q208. It is worth noting that it is not uncommon to find smut whips in Q208, particularly in areas where spore loading may be higher, or the cane is stressed.

In newsletters and shed meetings, BPS had communicated the fact that varying levels of smut have been found in the newly released variety SRA8, along with some other varieties. It is worthwhile

reviewing the current situation as there have been some concerns regarding ongoing smut issues with SRA8 in the district.

Following the discovery of smut in SRA8 in some plots in 2017, there has been some misinformation regarding the management and spread of the disease. SRA pathologists have advised that SRA8 grown commercially with minimal stress is unlikely to contract smut in high levels early in the crop cycle. Growers who have planted SRA8 should ensure it is well irrigated with appropriate nutrition and weed control. BPS has observed an example of how stressed cane contracts smut at much higher levels than well managed cane at a trial site. This particular site involved replicated strips of well managed SRA8 (and other experimental varieties), as well as 2 rows of SRA8 that were under irrigated as it was an intended plant source. These 2 rows of under irrigated SRA8 had significant smut infestation in 1st ratoon, whereas the well managed SRA8 (same plant source, same plant date, same environmental conditions and spore loading) only 50 metres away had no visible smut infestation.

Anyone planting SRA8, or other intermediate rated varieties, should plant with the fungicide Sinker to assist in control of the disease and minimise stress. General farm biosecurity such as cleaning and sterilisation of equipment should also occur.

Yellow Canopy Syndrome (YCS)

YCS is still an issue of concern for the region and BPS staff observed an increase in YCS severity and incidence in 2017/early 2018 when compared to the previous 2 years. Levels were similar to those experienced in 2014/2015. Blocks with the highest levels of YCS in general were found in the Delta area. Researchers from SRA, CSIRO, University of Queensland and Western Sydney University have ruled out many potential causal agents, however, the true cause is still unknown. Research to date has shown major disruption in the internal sugar transport system of the plant as well as disruption to photosynthesis and plant function. New findings are indicating that it appears that YCS is linked to an insect – although it is not currently understood if the insect has a direct impact causing YCS, or if it is a vector for a disease. Significant research effort will continue throughout the coming season with a focus on insect monitoring and management options. BPS continues to assist SRA researchers wherever possible so please report anything unusual to your BPS Field Officer.

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 provide one on one and group extension and supports and assists growers on a range of issues such as irrigation, harvester performance, nutrition, water quality, soil ameliorants and BMP. BPS acknowledges and greatly appreciates the financial support from the organisations providing funding.

Reef Alliance Project

NQ Dry Tropics have funded BPS to undertake one on one extension activities relating to nutrient and irrigation management. There was also a small proportion of funding through this project that was allocated to partially fund shed meetings that 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 over 40% of growers attending most meetings over the last few years. BPS would like to acknowledge the contribution of Evan Shannon (Farmacist) in delivery of shed meetings in partnership with Rob Milla. Feedback from those that are attending shed meetings is that the information presented is highly valued, as is the opportunity to discuss a range of productivity and profitability issues. BPS encourages all growers to attend their local shed meeting, and please inform staff if you have any topics you would like presented.



Image: Rob Milla presenting at Jarvisfield Shed Meeting Feb 2017

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. There are 4 focus areas in the Burdekin: extension advice, financial incentives for improvements to irrigation infrastructure, the installation of bores to lower groundwater levels, and the provision of information systems.

The project commenced in July 2014 and concluded in June 2018. Thirty-six growers were funded under the financial incentives scheme for projects to improve irrigation efficiency and reduce losses to deep drainage. These projects included pipeline installations to replace earth channels or fluming and allow higher inflow rates to be used; trickle irrigation; shortening of row lengths to reduce irrigation times and water use; and recycling to capture run-off from increased inflow rates and to provide extra water to boost inflows. The total value of these projects was in excess of \$1.76 million, with funding of \$677500 being provided. The average water saving for all projects was 3 ML/ha/yr over an area of 2835 hectares.

Nine conjunctive use bores have been fully installed, and another two are under development in the Leichhardt and the Upper Haughton areas. Six of the original bores continue to be well used, as does a seventh that was relocated from its original site. The bores that are no longer being used had either very low flows or the water quality was too bad to make it economical to pump. The bores have so far extracted over 3600 ML from the aquifer.

The information systems funding was used by BPS to provide a range of tools and services. These include the installation of soil moisture probes in representative soil types, the data from which is used to show water movement and extraction in different soils; the weather station network; access to IrrigWeb for all BPS members; and the purchase of an ultrasonic flow meter to measure water flows in pipes.

Smartcane BMP

The Department of Environment and Science has funded CANEGROWERS to implement the Smartcane BMP program. CANEGROWERS has subcontracted BPS to deliver important parts of the Smartcane BMP program. BPS acknowledges 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. CANEGROWERS are in the final process of agreement with the Queensland Government to extend funding for the Smartcane BMP program out until 2021.

There are now 284 Burdekin growers registered in the Smartcane BMP program and 266 growers benchmarked. This equates to 57 683 Ha of sugarcane land who have completed self-assessments in the three key modules (soil health & nutrient management, irrigation & drainage, weed pest & disease management). The Burdekin now has 27 growers accredited in the three key modules which accounts for approximately 11354 Ha. Terry and Jasmine currently have 54 growers who are working towards becoming accredited in the three key modules and 10 growers who will be accredited at the time of writing this report. Many other growers have indicated that they would like to achieve accreditation within the next few years. The Burdekin also has one grower who has progressed to a level of having all eight modules accredited. This grower will be the only grower to achieve this in Australia.

Smartcane BMP self-assessment group workshops every fortnight continue as well as one on one workshops for individuals who cannot make the workshops. General extension advice on irrigation, herbicide and insecticide calibration spraying set up, nutrient application and precision agriculture are all steps that help growers on the way to achieving accreditation. Through extension and workshops, growers are steadily gathering the information required to complete BMP accreditation. Terry and Jasmine have also developed a suite of tools which help growers gather information. For example spray and fertiliser calibration calculators and record keeping sheets.

Irrigweb (an online irrigation scheduling tool) which is available to all Burdekin growers simplifies this process to record irrigation events. Irrigweb workshops have increased and grower participation has been positive. The reports generated from Irrigweb provide all evidence required to complete the BMP irrigation module successfully. All growers who are using Irrigweb have been accredited in the irrigation module to date.

Terry has a Bonsucro pilot group of which 8 growers who are already Smartcane BMP accredited and have completed Module 8 in a self-assessment workshop. The growers who attended believed that the way forward would be to align Bonsucro with Smartcane BMP rather than have two separate programs.

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 is in its third and final year with the remaining two nitrogen product, rate and timing demonstration sites and five soil amelioration (gypsum and lime) rate and product demonstration sites to be harvested this season.

Real time water quality monitoring continues in two sub-catchments, producing data on water quality impacts at this scale and identify on farm practices that may be improved to improve nitrogen use efficiency. This year, end of block samplers were utilised to increase the block scale monitoring across the sub-catchments for those growers who were interested in comparing runoff from different management practices.

The strength and value of conducting block scale monitoring alongside sub-catchment monitoring, lies in the fact that the results are real and relevant to the growers, and this information can be used by the growers and extension staff to look at options for ongoing improvement and practices change.



Image: Water samples being collected by KP samplers

After the harvest of remaining trial sites this year, Project NEMO will conclude. The relationship built as a result of this project will continue to be fostered by BPS staff and findings of the project utilised where possible in extension activities.

EEF60 Enhanced Efficiency Fertiliser Project – Funded by Commonwealth Dept Environment and Energy

The EEF60 project has been going well so far apart from a few unpreventable weather events that interfered with biomass sampling. The project is investigating the use of two Enhanced Efficiency Fertiliser (EEF) products – a nitrification inhibitor and a polymer coated product. To date, these 2 products have been tested separately, however EEF60 is the first project to investigate the effectiveness of combining these two products in a single blend.

Since June 2017 15 trial sites have been established, had soil tests taken and been fertilised. From the soil tests taken through the EEF project and previous soil tests the growers provided, nutrient management plans were developed for the entire farm if there wasn't one in place already. These have been based off 5 years' worth of soil tests and are in line with the 6 easy steps guidelines. Some growers in the project are interested in using EEF's on other blocks, however cost issues seem to be the main inhibitor at this stage.

Grower engagement has been maintained through regular visits to obtain irrigation, herbicide, pesticide and cultivation activities on the trial block. To assist growers in understanding their irrigation volumes applied, BPS staff have performed pump flow tests with a portable ultrasonic flow meter to help calculate their irrigation. Along with this, irrigation scheduling workshops, such as Irrigweb, are being held for Burdekin growers to encourage water use efficiency. Other extension activities such as BMP, soil/water tests, calibrations of fertiliser boxes and spray rigs, chemical certification courses, workshops etc. have been provided to the participating growers. There are 5 growers that are Smartcane BMP accredited in the project and a majority of the others are keen to become BMP accredited in the next few years.

Biomass sampling is complete for the first year with the results being analysed at the time of reporting. Some blocks had been affected by severe winds that passed through in a storm earlier in the year which caused some cane to lodge and sprawl making it difficult to sample. Harvesting of trials has begun and will conclude later in the year.



Images: Jasmine Connolly (BPS) and Nick Hill (SRA) calibrating a fertiliser box and biomass sampling.

Soil Health Project

Terry Granshaw was appointed the soil health officer in the Burdekin for the SRA soil health project. Collaboration between research and extension providers SRA, BPS and DAF are paramount if the project is to have a good outcome. Three demonstration sites were established across the Burdekin. Each site will compare grower standard practice against an improved BMP farming system. These sites have been selected in three different representative locations around the Burdekin. One is a large farming corporate type entity on a BRIA soil type, another is an average size family owned farm in a high yielding delta soil type and the third site is a small grower in a lower yielding area of the Burdekin. All three sites have had a trial plan developed and implemented thus far. Thorough chemical and biological measurements have been taken by SRA technicians and researchers have evaluated differences between each trial plot on each site to date. BPS staff often liaise with DAF economists as they continue to create economic spreadsheets comparing production and profitability costs from actual costs of all operations on the trial sites. It is hoped that a positive outcome from the project would be a simple record keeping system that all growers in the industry have the opportunity to use.

All trials on all sites have at least one plot that implements an improved farming system and baseline data prior to treatments being applied was collected. Comprehensive soil sampling and mapping were completed on all sites before any operations had started. Variable rate applied soil ameliorants were completed via prescription mapping on all sites. At least one plot on each site has a legume planted and controlled traffic system, minimum tillage practice and banded spraying where possible. Harvesters will be set up to be able to cut all row spacings and commercial yield monitors fitted to them so that yield maps can be developed on the trial plots. Two of the three harvesters have them fitted already. The high yielding delta site has been successfully harvested this year and results are being analysed.

Part of the soil health project program was to compare paired sites. This meant finding growers who are already using an improved farming system approach and comparing them with neighbouring grower's standard practice on the same soil types. Terry completed this task and soil tests were conducted and analysed by SRA technicians and researches.

Several successful field days have already taken place on the trial sites. One particular site where sub surface mill mud was applied at depth has created a lot of interest throughout the industry and Australia. A collaboration of industry representatives discussed the trial layout and this was implemented successfully. The field day was to gather interest around the development of a machine that could apply mill mud at depth in one pass that is affordable to the grower. A positive environmental and productivity outcome is expected from this trial.

Other Activities

BPS currently has twelve 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 from which BPS staff can base recommendations.

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.

These trials have proved very useful extension tools for growers who wish to see the new varieties growing in a commercial situation. However, the most value of these trials is seen in discussions at Regional Variety Committee (RVC) meetings. Data and field observations from the BPS strip trials are discussed at length at RVC meetings, so that the voting members (grower collectives and Wilmar) can make an informed decision upon releasing a variety. BPS appreciates the assistance of SRA, particularly Catherine Kettle, in providing these varieties for trial use.

Next Gen Bus Trip

Members of the Burdekin Next Gen group took part in a three day bus tour throughout the Wet Tropics and Mareeba agricultural region which was arranged by Burdekin Productivity Services and Sugar Research Australia. The tour consisted of seven site visits over the three days with shed meetings and field walks.

The group travelled to the DAF research station in South Johnstone where a presentation was conducted on the use of drones in sugar production and a practical demonstration of how drone mapping of crops in the Wet Tropics is currently being utilised. The remainder of that day was spent visiting the stations sites for citrus trellising and banana trials. Various DAF extension staff were available to answer questions throughout the day and provided in-depth insights into agricultural operations of the region.

The second day saw the group visit Blue Sky Produce, Lindsay Rural transport, Skybury Coffee, MSF Farms and MSF Tableland Mill. As Blue Sky Produce is an avocado and mango farm many growers on the trip were unsure as to the relevance this visit would have in relation to their own farming practices. The growers were however pleasantly surprised by the operation and its enthusiastic owner Matt Fealy who gave the group a rundown on the farm's history, current practices and future direction. Although farming of fruit trees had its differences to sugar cane the growers saw great value in looking outside the sugar industry and admitted they had all learnt something from the experience.

The final day of the trip saw the group visit the SRA Meringa station south of Cairns to explore the plant breeding facility and discuss current projects taking place at the station. All growers on the bus were impressed by the farms that were visited and felt as though they had all gained valuable information from the experience. It was a great chance for everyone on the bus to catch up and to gain an outside perspective on farming systems from other regions and industries.



Image: Burdekin growers attending MSF Tablelands Mill as part of the Next Gen Bus Trip

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 Cherrie Johnson 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.

General Grower Support and Other Trials

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.

Future

One aspect that is very highly recognised regarding BPS is the strength of our relationships and contact with growers in the region. These relationships have been established over many years, largely by field officers and more recently with extra extension staff at BPS. The BPS management team place high importance on maintaining and strengthening our relationships with all growers in the region. Feedback we receive is that growers appreciate the fact that BPS staff make themselves available to assist growers in all aspects of their farming operation, and we would like to ensure members that the focus on face to face contact will be maintained and hopefully increase over time.

A review of the BPS strategic plan for 2018-2020 was conducted, in consultation with some focus groups comprising grower members and grower collectives. Feedback at these sessions showed that the strategic direction set by the BPS directors was appropriate, particularly with the addition of a new strategic goal of “Adoption of new technology to advance industry efficiencies”. This extra strategic goal does not remove focus from our core services of variety, pest, disease and extension support, but rather provides an opportunity for BPS to support growers to further refine their management, improve data collection, or save time and money by exploring new technology that may be applicable to their farming system.

BPS staff will continue to strive to provide a high level of service to all members through variety distribution, pest and disease management, agronomic extension services and locally relevant trials. Projects that align with our strategic plan will be pursued if the opportunity arises, as long as they result in profitable, productive or sustainable outcomes for our members.

BPS is also investing in the future of local students in the field of Agriculture. A BPS study Bursary was introduced recently, with 2 locals successful in obtaining a \$5000/yr bursary to support their studies in Agronomy. This opportunity is open to all Burdekin local school leavers who wish to pursue a career in Agriculture.

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 2017/2018 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.

Rob Milla

Manager

August 2018