

ISSUE 26 – JULY 2017

Welcome to the July issue of our BPS newsletter. We hope you find the articles contained in this issue informative.

This issue contains:

BPS Activities

New Staff

Pest and Disease Updates

- 2017 Grub flights
- Feral pigs
- RSD survey
- Orange rust

Harvesting Project

Staff Contacts

Feral Pig Reimbursement Application



Important Dates

July 11, 8.30 am: Cane Grub Update at Dino Poletto's shed (Garrone Rd) – see page 4

August 22, 1.30 pm: BPS AGM at Ayr Showgrounds Hall

BPS FIELD STAFF ACTIVITIES

During the last 3 months, staff have been very active finalising crop data entry, inspecting plant sources for members, selling seed cane from the plots and conducting the annual RSD survey.

Crop data is an electronic record where planting details and crop class are recorded for every block on every cane farm in the district. Details of fallow, break crops, pest damage and details of any sampling for disease or soil health are also stored. These records are used for future reference should there be a pest or disease outbreak, and collated for statistical analysis that forms part of the annual report.

Plant source inspections (PSI) are a free service to growers that involve staff taking samples from potential plant sources and checking them for the presence of disease. This is an important service as there is no value in using diseased planting material.

Planting was well underway and the seed cane plots were very busy before the rain event in May. Everything stopped for several weeks and planting has only recently recommenced. This year the plots throughout the district have sold close to 3000 tonnes of approved seed cane. Our target is 7500 tonnes, and growers are encouraged to increase the quantity of their orders to make use of a projected surplus. From a disease control perspective it is far better to plant out as much seed cane as possible, rather than sending it to the mill for processing.

After trialling a new method of RSD sampling alongside the industry standard ELISA (juice extract) method last year, SRA researchers have advised us to continue the ELISA sampling method exclusively this season while the new method is being refined and commercialised. At least one block on every farm in the district will be targeted for RSD sampling this year. Four samples will be taken from each of these blocks. This equates to more than 2000 commercial samples being taken. Add this to the more extensive sampling undertaken at the seed cane plots and staff will be expected to collect in excess of 3000 samples again this year. The task is well underway and will be close to completion by time of publication.

From these numbers, all members can be confident that BPS remains focussed on the core business of pest and disease control.

Planting of the Mother and Distribution plots at Inkerman was also completed during June. Most cane destined for the Inkerman Mother plot was sourced from P & K's Mother plot on Robertson's Rd, Ayr with the remainder coming from Duncan's Mother plot and Christensen's Isolation plot. All cane had to undergo cold soak - hot water treatment, so there was a lot of activity in the shed. As usual, the quality of product from these plots has been exceptional. Jim and Alan Richardson, Ken Duncan and Bill Christensen are congratulated on behalf of all members, for doing an excellent job.

BPS staff have also helped out with the Burdekin Show cane competition.

NEW STAFF

Cherrie Johnson

Cherrie recently joined the BPS team as a Trainee Extension Agronomist to continue Tiffany's work on project Nemo. Cherrie is very passionate about agriculture and is currently undertaking a Bachelor of Agribusiness majoring in Rural Science through The University of New England. She is keen to utilise her studies and general farming knowledge to assist growers to improve their productivity and profitability.



PEST AND DISEASE UPDATES

2017 GRUB FLIGHTS

BPS conducted flights over the whole district in late May to view damage from grubs. Overall the results were pleasing, with many of the traditional areas along the Burdekin River not showing obvious signs from the air of damage from canegrubs. However in the Giru and Haughton areas there were a reasonable number of the blocks that had significant damage. These blocks were inspected from the ground and grub management was discussed with the relevant growers. In some cases, no grub control products had been applied. Below is an example of one farm where the damaged block in the foreground had no treatment for canegrubs, whereas all the surrounding blocks were treated and showed no obvious signs of damage.



Conversely, there were some blocks where grub control treatment was applied, however the application process was not ideal. In the photos below, the damaged strip in the middle of the photo on the left was treated in a less than ideal manner. When stools were dug from this site, up to 13 grubs per stool were found, the picture below shows grubs from one stool - extremely elevated levels!



The two main products used for grub control have the same active ingredient – imidacloprid. The liquid products (Confidor Guard, Senator and others) give 12 months control, while suSCon Maxi Intel is a slow

release granular product that can give up to 3 years control. Talk to the BPS staff as to 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 are often asked “what is the maximum width of side dressing coulters when applying liquid Imidacloprid products?” The label states the coulters should be NO WIDER than 500mm apart, and the depth of application 100-125mm.

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 to ensure that we have these products available to us in the future.

SRA are undertaking research in two grub related areas. The first project, which commences 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 so as to not risk losing them.

BPS are holding a meeting in the Giru area to discuss results of the grub flights and grub control issues. The meeting will be held on Tuesday 11th July at Dino Poletto’s shed (Garrone Rd) at 8:30am. Representatives from Bayer and CropCare will be present to discuss their products. All growers are welcome to attend.

FERAL PIG ERADICATION PROGRAM

During a recent aerial survey of the district, BPS staff identified several hot spots where feral pigs had severely damaged crops. There is funding available to growers who require support with the eradication of feral pigs.

BPS will assist growers with coordinated aerial pig shooting in high pressure areas. Up to \$750 in the form of a 50% subsidy can be accessed by forming a small grower group amongst your neighbouring farm owners and organising a professional aerial pig shoot. Please contact Mark Rickards on 0427 834 800 or your field officer if you want to benefit from this pig shooting subsidy. The application form is on the back page of this newsletter.



2017 RSD SURVEY UPDATE

BPS field staff have completed the RSD (Ratoon Stunting Disease) surveys of all the approved seed cane distribution and mother plots. The surveys undertaken at our plots are extremely intensive, with every single row (top and bottom) being tested, and it is pleasing to report that no evidence of RSD was found at these sites.

However, it is not such good news in our survey of farms across the district. Of the farms that have been tested so far, **22 samples have returned with positive results for RSD. There has been at least one positive result in each of the four mill areas in the Burdekin** which means all growers and contractors should be taking measures to minimise risk of spread of RSD. Given that we have only tested around 60% of farms to

date, it appears that RSD levels are increasing in the district – last year there were around 20 positive samples across the whole district.

Controlling RSD is quite simple and is achieved by following these three principles:

1. Regularly purchase approved seed cane. The closer your seed source is to hot water treatment, the lower the chances of RSD. Even if you are growing a variety that has been released for many years, you still need to purchase approved seed cane to minimise the risk of RSD spreading onto your farm.
2. Sterilise equipment moving on and off your blocks. This includes planting equipment, fertiliser applicators and harvesting equipment. Sterilising is not difficult, only takes a small amount of time, and is very effective.
3. Ensure that fallows are free from volunteers - particularly where approved seed cane is being planted. If you have old cane plants growing amongst freshly planted seed cane, the risk of disease spreading from the older cane increases significantly.

RSD can cause yield losses anywhere from 5%-60%, so we need to ensure that the spread of RSD decreases. Over the last three years, we have had increases in the number of positive RSD samples each year. BPS has increased the intensity of sampling to ensure all members get their farm tested each year. Field staff have also made every effort to fulfil requests for seed cane orders, so please ensure all measures are being taken to minimise the risk of spread of this disease on your farm.

ORANGE RUST

BPS staff recently noticed low levels of what appeared to be orange rust in the new variety SRA8 in some of the variety trials and seed plots. Photos and leaf samples were sent to SRA Indooroopilly for diagnosis and it was confirmed to be orange rust.

Orange rust is a fungal disease with spores (see photo) that are spread by wind and rain. It is favoured by warm, humid weather and usually occurs during the wet season, but can occur at any time if environmental conditions are suitable. Control is by the use of resistant varieties.

On Thursday June 29 SRA pathologist Dr Rob Magarey visited the Burdekin to view some of the sites. His analysis is that the levels of infection are quite low and will not cause yield loss, but that we should continue to monitor the situation. The disease occurrence suggests that there are some specific microclimates that have favoured the disease, rather than it being widespread across the district.

Orange rust should not be confused with Brown rust, which is what we usually see in the dry season. Brown rust occurs when there are cool nights followed by warm sunny days. It can be quite prevalent in Q253.

If growers notice symptoms of orange rust in SRA8 and are concerned they should contact BPS, either via their field officer or by contacting the office directly.



HARVESTING PROJECT

In 2014 BPS began a three year trial to investigate the effect of harvester speed on crop yields and ratooning in the following crop. The trials also looked at the costs of harvesting, and whether soil type or variety affected how much harvester damage occurred. The trials finished last season (2016) with the second ratoon harvest. The statistical and economic analyses have now been completed and the results are available.

There were six trial sites, 4 in the BRIA and 2 in the Delta, with half the sites in each area being Q183 and the others being Q208. In year 1 (plant cane) the maximum speeds at most sites were only 9 km/h, the exception was site 6 where the maximum speed was 11 km/h. Smaller crops in years 2 and 3 allowed for higher speeds. To account for changes in the treatment speeds between the plant and first ratoon crops the treatments have been grouped as Low (5-6 km/h), BMP (7-8 km/h), Moderate (9-10 km/h) and High (11 km/h). At sites 4 and 5, the lowest speed in the plant crop became the highest speed in the next crop (Low-High).

There did not appear to be any interaction between harvester speed and variety or soil type but some differences in crop growth patterns were noted. Principally that Q183 had a rapid increase in shoot numbers up to 3 months after harvest, but that many of these shoots then died out by 6 months after harvest; while the Q208 crops had a much lower level of die out. Stool and gap counts showed no effect of speed. Within sites the gap and stool counts were similar regardless of harvesting speed, though the numbers did vary by site and reflected the number of gaps that were present after planting.

Over all three years and all six sites there was no significant response seen between harvester speed and either yield in that crop or ratooning. Within sites there was very little yield variation between treatments in any given season as seen in Figure 1. This was repeated at the other four sites. Any differences within sites were as a result of variability across the block, not harvesting speed.

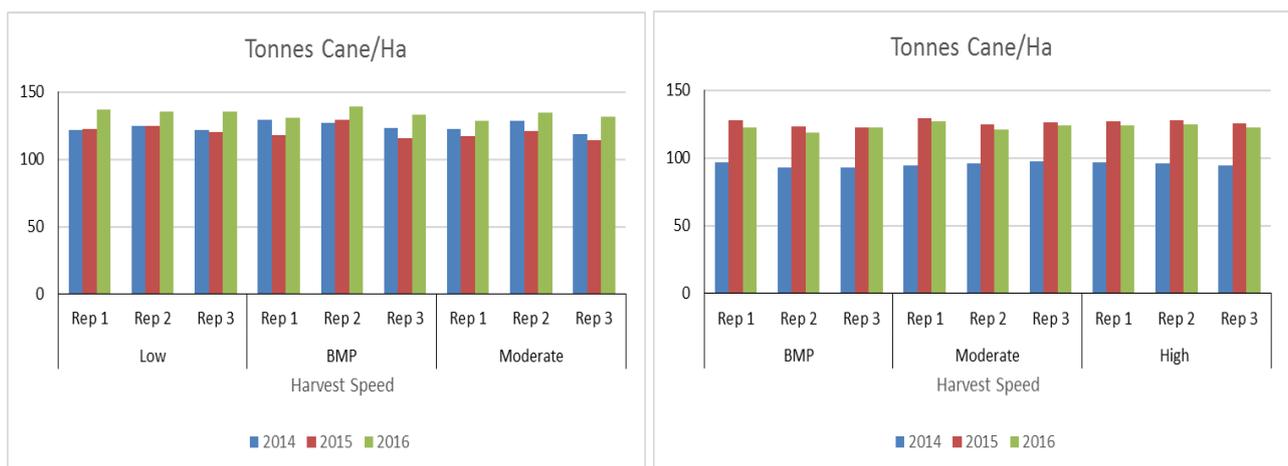


Figure 1: Cane yield over time at sites 2 and 6. Harvesting speed had no effect on yield.

The economic analyses did show a slight link between harvesting speed and costs. When the speed moved from Low to BMP there was a decrease in costs at all sites. Beyond this point though there was no trend. At some sites costs continued to decrease, at others they increased (Figure 2). This appears to be largely due to differences in the time waiting for bins, which is affected by the number of haulouts and the haul distance.

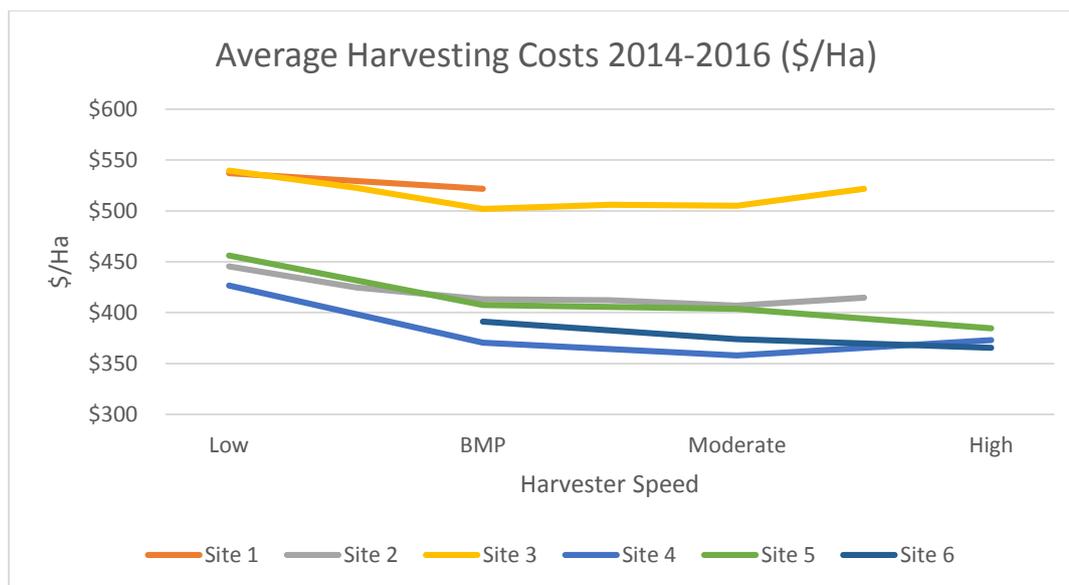


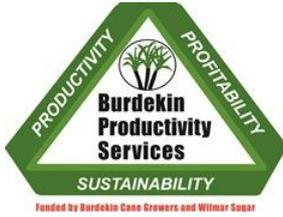
Figure 2: Average harvesting costs (\$/Ha)

This series of trials has found no correlation between harvesting speed and yield in the following crop, but the maximum harvester speeds in the trials could be considered to be reasonably conservative. Anecdotal reports suggest that some machines are regularly operated at much higher speeds, but this is difficult to confirm. Other factors had a greater effect on yield than the harvester speed. The most obvious of these was irrigation management. At sites where some plots missed a watering or where the water failed to reach the end of the field there was a significant reduction in yield in those plots.

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Feral Pig Reimbursement Application

In order to be considered for partial reimbursement for feral pig control via aerial shooting you must:

1. Be part of a group of growers (minimum 3) who are combining resources to shoot pigs in a co-ordinated manner
2. Complete this form prior to the aerial shoot
3. Pay the invoice and send copies to BPS for reimbursement
4. Report back the number of pigs shot

Conditions:

- BPS will reimburse grower groups 50% of costs up to a maximum of \$750 per year
- If the BPS allocated budget is exceeded, BPS may withdraw this opportunity
- The group must complete this form and report on the total pigs shot
- All growers must sign this form

Nominated grower to receive reimbursement on behalf of the group _____

Bank Ac Details BSB _____ Ac. _____ ABN. _____

Grower Group Details

Grower Name

Grower Signature

Region where shoot will occur (eg: Giru) _____

Number of pigs shot (complete after shoot) _____