



Grower Update

ISSUE 50 – AUGUST 2024

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



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Staff Updates

Itch Grass and Wild Sorghum

Rogueing

Importance of Phosphorus for Plant Cane

Wallaby and Feral Pig Fencing Subsidy

Soil and Water Testing Services

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2024 Canegrub flights and Area Report

AGM Notice

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BPS ANNUAL GENERAL MEETING

The BPS AGM will be held on August 23, 2024 at the Ayr Showgrounds Hall. Breakfast will be available from 8 am with the meeting to commence at 9 am.

Guest Speaker: Ethan Waters (JCU) "RSD detection in sugarcane crops via satellite imagery"

STAFF UPDATES

Retirement of Mark Rickards

Mark Rickards, who has been with BPS since the 14 of February 2014, will be retiring on the 23rd of August 2024. Mark has been in the Company Secretary/Commercial Manager role for the entirety of his time at BPS and has been an integral part of providing administrative support to the board, finance and administration tasks, community relations and membership management. From all the team at BPS we wish Mark a happy and relaxing retirement!



Appointment of Elliott Gullotta

Elliott Gullotta has been appointed as Mark Rickard's replacement in the Company Secretary/Commercial Manager role and commenced on the 8th of July, 2024. Elliott grew up on a cane farm on the up river side of Home Hill and has extensive knowledge of the region and farming practices having worked at Lower Burdekin Water as a Finance Manager for the last 14 years.



Rina Patane – Ag-Tech Trainee Field Officer

In February 2024, Rina joined the BPS team after graduating year 12 at Home Hill State High School. She has a passion for agriculture and comes from a farming background. Rina is also doing external studies to become more knowledgeable in her role.



Asha Gould – Trainee Extension Officer

Asha joined the BPS team as a graduate Extension officer in March 2024, relocating from the western suburbs of Victoria, where she grew up. She studied a Bachelor of Agriculture with Honours at Melbourne University and completed an honours research project in crop genetics which is her passion. In Victoria she worked as a research assistant in perennial horticulture and pulse breeding, so is excited to learn all about the sugarcane industry. Asha is passionate about agriculture's role in supporting peoples' livelihoods and is looking forward to creating good relationships with farmers to support them in their practices.



ITCH GRASS AND WILD SORGHUM ROGUEING

Itch Grass remains a very high priority for BPS and we have increased our budget this financial year for Itch Grass control activities. Itch Grass is a very vigorous weed that has potential to spread significantly and have a large negative affect on district productivity.

It is everyone's responsibility to control Itch Grass. Growers need to monitor and control on their own farms; contractors need to ensure machinery is cleaned down between blocks and farms; and BPS and council need to monitor and control public hotspots and help out growers wherever possible. Unfortunately we are seeing some complacency when it comes to Itch Grass control on individual farms where some growers are not putting the effort into controlling this weed and are relying on BPS or others to help out. Going forward, BPS will prioritise assistance to those growers who have put efforts into controlling the weed on their farms first.



We are also seeing some complacency with wild sorghum control on farms. Due to the focus and prioritisation on Itch Grass control activities, BPS assistance with sorghum rogueing will now be a more formal process than in previous years. A 50% subsidy for sorghum rogueing is available to BPS members, as long as certain conditions are met. It is also very important to note that Itch Grass activities will take priority. If an Itch Grass outbreak is found, sorghum rogueing will be delayed, even if it has been previously organised.

To apply for a sorghum rogueing subsidy, please contact Elliott Gullotta or your BPS Field Officer for an application form. Some of the conditions for eligibility include:

- Being a regular BPS levy payer on all farms,
- Consenting to sharing Wilmar data so BPS can record and map weed control activities on your maps,
- Not have outstanding debts to BPS,
- Provide evidence of previous control activities undertaken on relevant blocks,
- Have a plan to continue to manage sorghum after rogueing.

For any weed, the best place to start control activities is in the fallow by ensuring weeds are controlled before they flower and seed. Contact a BPS staff member or your chemical advisor if you are concerned about increasing weed problems on your farm. Rogueing should be the last point of control after all other options have been utilised, so ensure all weed control activities are conducted on time.

It is also worth noting that if you require immediate rogueing, then it may be best to contact the local backpackers organisations and organise the casual labour yourself.

IMPORTANCE OF PHOSPHORUS FOR PLANT CANE

Phosphorus is a very important nutrient for sugarcane growth in general but is most important at its earliest stages of development, namely at planting.

Phosphorus plays a vital role in developing a strong healthy root system, as well as in promoting tillering once shoots are emerging. Having a good root system allows the crop to hold itself strongly in the ground, but most importantly allows it to obtain nutrients needed for growth throughout its lifecycle. Nutrients such as nitrogen, potassium, zinc, sulfur etc., all of which are essential for the crop to grow and develop to its full potential.

This is why if there's a phosphorus requirement for a soil, it's recommended the full amount of required phosphorus is applied at planting. It's likely supplementing later at hill up stage will still have some benefit, but not as effectively as in those earlier stages.

Australian soils are naturally low in phosphorus which is why we often need to apply phosphorus in fertiliser blends, or in mill mud which is a very rich source of phosphorus. In fact, you have applied mill mud in the last 5 years, it's very likely you'll have sufficient phosphorus in the soil.

For those soils naturally sufficient in phosphorus (such as some of the alluvial soils in the delta) or where mill mud has been applied applying extra phosphorus won't enhance early crop growth. It only applies excess phosphorus to the system which can be lost, while also reducing the availability of other nutrients such as copper, zinc and iron which are also needed for a healthy crop. This is why it's valuable to check soil test results to see if there is sufficient phosphorus already. Phosphorus is the most expensive nutrient per weight, so it will also save costs if it doesn't need to be applied.

To determine the phosphorus requirement for a soil, we need to know how much phosphorus is currently in the soil, and the phosphorus buffering index (PBI) which indicates the soil's ability to release phosphorus to be available to the plant. These are cross referenced to determine the suitable amount of phosphorus the soil should be topped up with to ensure there is enough available for the plant to access.

BPS is currently partnering with SRA to investigate phosphorus requirements for sugarcane growing on alkaline soils. This research is being conducted on 3 soil types in the Burdekin region and involves extensive soil and plant sampling to monitor phosphorus uptake. Results will be communicated with industry when they become available.



WALLABY AND FERAL PIG FENCING SUBSIDY

Pest management is a very high priority for Burdekin Productivity Services (BPS). This financial year we have budgeted funds to partially offset the cost of barrier fencing to prevent wallaby and/or feral pig intrusion onto member's cane farms. Some of the conditions for eligibility include:

- Being a regular BPS levy payer on all farms in the previous 3 years,
- Consenting to sharing Wilmar data so BPS can record and map pest damage and control activities on your maps,
- Not have outstanding debts to BPS,
- Provide evidence of wallaby or feral pig damage to your sugarcane crop,
- Present a plan and quote prior to construction.

The amount of subsidy available shall be calculated on a percentage basis of levies received by BPS from the applicant in the preceding 3 years, and will be capped at the lesser of items 1, 2 and 3 below. The following terms apply:

1. The subsidy shall not exceed 20% of the total construction amount.
2. The subsidy shall not exceed 80% of levies paid to BPS by the applicant in the past 3 years.
3. The maximum amount payable is \$5,000 per application.
4. Entities are allowed one application per 3-year period.
5. Subsidy application approvals shall cease each year once the budgeted amount has been expended.

Please refer to the following link on the BPS website for more information:

<https://bps.net.au/2018/wp-content/uploads/2024/07/Wallaby-Feral-Pig-Fencing-Subsidy.240410.pdf>

SOIL AND WATER TESTING SERVICES

Did you know that BPS provides many services to its members? Two of these services are soil and water testing.

The soil testing service includes sample collection, analysis, interpretation and recommendations for plant and ratoon cane.

Water tests include pH, EC, dissolved nutrients, and water quality analyses (e.g. hardness, alkalinity, sodicity risk). BPS staff can also do a quick EC test at no cost.

Below are the costs of these services:

Test	Cost to BPS Members
Sugarcane complete soil test (CT465).....	\$200 plus GST
Subsoil test (E74)	\$80 plus GST
Irrigation water test (C1)	\$70 plus GST

REMOTE SENSING

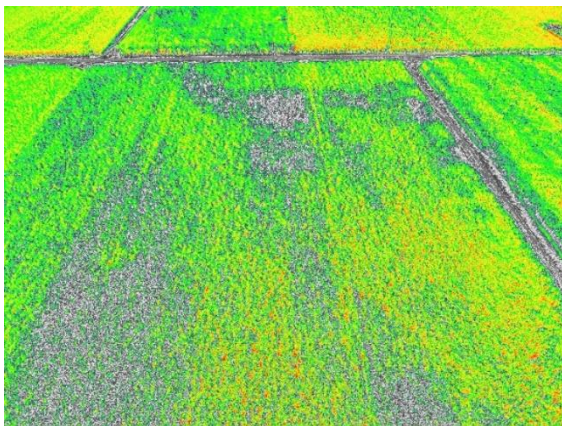
In late April, BPS was able to acquire a new DJI Mavic 3M Drone. This drone has the ability to capture high quality images with its 5 multispectral cameras and 20MP RGB camera. The DJI Mavic 3M allows us to analyse paddocks of concern at a comprehensive level. This drone has already been used over several farms to give growers the opportunity to see any problems or concerns in their paddock from an aerial view.



We conduct drone flights for many different reasons. Our Ag-Tech Officer, Rina Patane, has already conducted flights to assess vine damage, pig and cane grub damage, dry patches in the cane, and searching for itch grass. We are excited to continue drone flights to help growers manage any issues that may arise.

This drone has the potential of being able to use Normalised Difference Vegetation Index (NDVI) to identify issues before they are visible to the human eye, making it a powerful tool for early detection. As we are still always learning about new technology we would like to see many valuable and beneficial things come from this type of technology such as the use of NDVI and Artificial Intelligence.

Below are some of the images we have taken with our new drone.



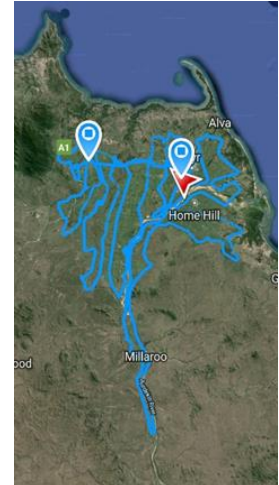
Above left: An NDVI image of dry patches in cane due to soil type.

Above right: Pig and grub damage

Left: Vines in cane

2024 CANEGRUB FLIGHTS AND AREA REPORT

In mid-May, the staff at BPS conducted their annual Greyback Canegrub flights (flight paths at right) over the four milling areas. Overall, compared to past years, there seem to be less blocks affected or showing symptoms.



The main areas affected are along the Burdekin River and the Houghton River catchment areas. Staff have been out ground truthing all the paddocks that have been marked as suspicious during the flight. This involves confirming that the damage has been caused by canegrubs, checking that they are greybacks, and finding out a bit of background information. Most grubs found were anywhere from 20cm to 50cm deep. This could be from different flight times.

During the months May through to August the grubs are full size, doing most of their damage to the crop's root system and by August they will go into the pupation life cycle stage. Beetle flights will then start again around the months October to December.

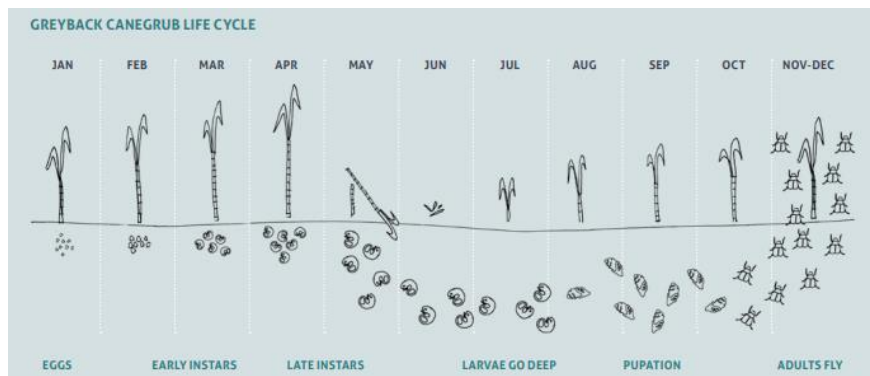


Figure 1 Greyback canegrub life cycle (Source: Greyback Canegrub Management Manual, SRA 2020)

Some common questions from growers are:

- Is there a specific sugarcane variety being targeted more?
- Or soil types?

The answer is no, we have seen all varieties affected. Staff have also found grubs in a range of soil types, from heavy clays to sandy loam soils.

If you have any further questions or feel you may be affected by canegrubs, please contact your field officer.



Figure 2 Affected blocks from the air and after harvesting



Funded by Burdekin Cane Growers & Wilmar

Annual General Meeting

The Board and Management of BPS cordially invite all Financial Members and Industry Representatives to join them at the AGM on Friday 23rd August 2024 at the Ayr Showgrounds Hall commencing at 8.00am for a light breakfast followed by the AGM at 9.00am.

Ethan Waters representing James Cook University will deliver a presentation on 'RSD Detection in Sugar Crops via Satellite Imagery'

Complimentary Breakfast at 8am will precede the AGM

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