## Das, Bianca (A&F, St. Lucia)

From: FRIES Jakob < Jakob.Fries@dnrme.qld.gov.au>

Sent: Wednesday, 4 April 2018 10:21 AM

To: Das, Bianca (A&F, St. Lucia)
Cc: KING Alastair; TAHIR Nikita

Subject: RE: P2R Sugarcane Technical Report, 2014-2016 - APSIM modelling

Attachments: Drains\_Peizos\_WQ\_data\_20180403.xlsx; Lysimeters\_WQ\_data\_20180403.xlsx;

Peizo2\_level\_data\_20180306.xlsx; Peizo3\_level\_data\_20180306.xlsx; Soils\_data\_20180303.xlsx; biomass sampling results\_150324.xlsx; biomass sampling results\_151103.xlsx; biomass sampling results\_160629.xlsx; biomass sampling

161026.xlsx; Biomass Sampling Strategy.docx

## Hi Bianca

I have attached our results for 2014-16, also please have a read of the notes on biomass sampling and calculations, this will hopefully give you a better idea of the sampling scheme and calculations we have used. I can say that our biomass estimates are likely to be an overestimate of actual biomass, difficult to say by how much but maybe ~5%. If you have any questions please give me a bell or an email. Also, apologies for the multiple spreadsheets!

## Cheers Jakob



Jakob Fries BSc. MPhil candidate

Scientist

Planning services | Natural Resources | North Region

Department of Natural Resources, Mines and Energy

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W: www.dnrme.qld.gov.au

From: Bianca.Das@csiro.au [mailto:Bianca.Das@csiro.au]

Sent: Wednesday, 4 April 2018 9:49 AM

To: FRIES Jakob < Jakob.Fries@dnrme.qld.gov.au>; KING Alastair < Alastair.King@dnrme.qld.gov.au>; ENDERLIN Neil

<Neil.Enderlin@dnrme.qld.gov.au>

Cc: MASTERS Bronwyn < Bronwyn. Masters@dnrme.qld.gov.au>

Subject: P2R Sugarcane Technical Report, 2014-2016 - APSIM modelling

Hi Jakob, Al and Neil,

I am guessing your data is probably in a spreadsheet with a whole lot of other data. If you want to send me what you have in its current format – that's totally fine. Don't worry about sorting it or tidying up!

I really appreciate your help and am happy to keep you updated / answer any questions.

Cheers, Bianca From: MASTERS Bronwyn [mailto:Bronwyn.Masters@dnrme.qld.gov.au]

Sent: Thursday, 22 March 2018 2:07 PM

To: Das, Bianca (A&F, St. Lucia) < Bianca. Das@csiro.au >; FRIES Jakob < Jakob. Fries@dnrme.qld.gov.au >; KING Alastair

< <u>Alastair.King@dnrme.qld.gov.au</u>>; <u>ENDERLIN Neil < Neil.Enderlin@dnrme.qld.gov.au</u>>

**Cc:** Biggs, Jody (A&F, St. Lucia) < <u>Jody.Biggs@csiro.au</u>>; Thorburn, Peter (A&F, St. Lucia) < <u>Peter.Thorburn@csiro.au</u>>

Subject: RE: P2R Sugarcane Technical Report, 2014-2016 - APSIM modelling

Hi Bianca,

Great to hear from you. I have cc'd my colleagues Jakob Fries and Al King, they will be able to assist you with the **above ground biomass weights**, **soil organic carbon**, **pH** and **piezometer data** (2014-16). Neil, could you please compile and send through the **soil survey data**?

Thank you for picking up on that typo. I can confirm the correct date for top dress of fertiliser is 22/10/14.

I am about to go on long service leave. But please continue to keep in contact with Jakob as you progress through the modelling. Please also keep me cc'd as I'm interested to pop my head in from time to time to see how everything is progressing.

Kind regards,

Bronwyn Masters
Land & Water Science | Planning Services | North Region
P 07 4017 0116 M 0421 716 146

From: Bianca.Das@csiro.au [mailto:Bianca.Das@csiro.au]

Sent: Thursday, 15 March 2018 4:12 PM

To: MASTERS Bronwyn < Bronwyn. Masters@dnrme.qld.gov.au>

Cc: Jody.Biggs@csiro.au; Peter.Thorburn@csiro.au

Subject: P2R Sugarcane Technical Report, 2014-2016 - APSIM modelling

Hi Bronwyn,

My name is Bianca Das, I am working with Jody and Peter to model the results from the P2R Sugarcane Technical Report, 2014-2016. We had a go with the information from the report – and it's not looking too bad! We would like to add a few more measured data points into the simulations to validate what we've done.

- It looks like **above ground biomass weights** were recorded on the following dates (24/03/15, 3/11/15, 29/6/16 and 26/10/16 page 10). Could we get the weights?
- It would be very useful to supply the model with real **soil organic carbon** values. We have to provide the model with values down to ~1 metre (page 4 has 0-10 cm). Other soil properties such as **pH** would be useful to
- We can set APSIM to simulate a dynamic water table but rarely have access to data but it looks like you have **piezometer data**. Would you mind sharing the data?
- Could we have the **soil survey field data** (section 7.2, p 51)? We can use this to improve the soil textures and depth of certain layers.
- In the report there are two conflicting dates (22/10/14 page 6, and 2/10/14 page 7, table 1) for the fertiliser top dressing. Probably just a typo could you confirm which date it was?

Feel free to give me a call to discuss anything further on 07 3214 2283. Thanks very much for your help.

Warm regards,

**Bianca Das** 

Research Technician Agriculture and Food - CSIRO

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