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**Meeting on 19 August, 10:00 – 11:30**  
**M4**  
**Section meeting**

**Minutes**

**Present:** Climate and Water section

**Agenda:**

1. Welcome back from holiday
2. Approval of agenda
3. Staff news
4. Presentation of the 'occupational health and safety committee (LAMU), Anne Sofie Nielsen
5. News from committees
6. Messages:
  - a. Department management
  - b. Updated guidelines for guests
  - c. Other messages
7. Social event:
  - a. Excursion 22 August
  - b. Other suggestions
8. AOB
9. Publications:
  - a. Laura Harbo et al.: Estimating organic carbon stocks of mineral soils in Denmark: impact of bulk density and content of rock fragments
  - b. Yue Li et al.: Plastic mulching significantly improves soil enzyme and microbial activities without mitigating gaseous N emissions in winter wheat-summer maize rotations
  - c. Davide Cammarano et al.; Processing tomato production is expected to decrease by 2050 due to the projected increase in temperature
  - d. Yuanliu Hu et al.; Mycorrhizal fungi alleviate acidification-induced phosphorus limitation: Evidence from a decade-long field experiment of simulated acid deposition in a tropical forest in south China

Jytte Christensen

Date: 25 August 2022

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**Ad 1: Welcome back from holiday**  
Mathias welcomed all back from holiday.

**Ad 2: Approval of agenda**  
Approved

**Ad 3: Staff news**



- Welcome to:
  - PhD student Vasilis Michailidis, supervisor is Diego Abalos. It is a joint PhD study with JRC in Italy, so Vasilis will stay in KLIMA for the first and third year of his PhD study.
  - Guest Postdoc Guillermo Guardia Vázquez, host is Diego Abalos. Guillermo is from University of Madrid and will around until 1 December 2022.
- Goodbye to:
  - Guest PhD students Qiong Chen and Winnie Ntinyari will leave per 31 August.
  - Guest MSc student Roland Jensma will leave per 1 September.
  - Guest PhD student Yan Sha will leave around mid of September
- In pipeline:
  - Marvin Garcia will start as enrolled PhD student by 1 September.

An overview over known newcomers during Q4-2022 and Q1-Q2 2023 is enclosed to the minutes. In order for the secretary to have an overview you are all urged to inform Jytte and Mathias as early as possible when you are contacted by interested students/guests.

See also the new procedure/guidelines for inviting guests (below).

#### **Ad 4: Presentation of the ‘occupational health and safety committee (LAMU), Anne Sofie Nielsen**

Anne Sofie Nielsen gave an overview over the LAMU committee, the organization and their tasks. Anne Sofie represents ‘Office-Foulum’ and she is located in the SYSTEM section (PV22 first floor). If you have any work-environmental issues (both physically and mentally), you are always welcome to approach her.

Currently the committee works on the results of the Work Place Assessment. All are encouraged to sign up for a workshop on ‘Cross-cultural-communication’ held in Foulum on the 29 September from 9 – 12. Link for registration <https://events.au.dk/crossculturalsep2022>. In our section we have previous talked about organizing such a workshop.

Link to the LAMU homepage <https://agro.medarbejdere.au.dk/udvalg-i-agro/lamu>.

The presentation is attached to the minutes.

#### **Ad 5: News from committees**

- Data Management Committee, Jens Grønbech Hansen

- Our needs for HPC (High Performance Computing) has to be identified. DeiC is offering tools and services for all universities. Maria Knadel (SOIL section) collects information to feed into this DeiC service.
  - AU now has access to three data repositories:
    - ERDA (not GDPR data)
    - ERDA-SIF (GDPR sensitive data)
    - DeiC Dataverse (national data repository and extended metadata compared to ERDA)
    - Jens will take this point up again at the next section meeting
  - The START and Land-CRAFT centers have to appoint data-stewards to work on data management together with the Data Management Committee at AGRO.
- 
- PhD committee, Jim:
    - It time again for wellbeing conversations for enrolled students.
  - Education, Jim:
    - A meeting is held 19 August on designing Agrobiolgy 2.0.
    - Uffe has some input regarding buildings but he does not know where to give the message. Jim promised to find out how the information flow is across the different committees.
  - Harvest party committee, Jeroen:
    - Invitation is out. Jeroen encouraged all to sign up for the party held on Friday 23 September.
  - Staff club, Kirsten:
    - 24 hour run 20 August
    - Harvest party 23 September
    - Small football field will be established next to the beach volley site.

## Ad 6: Messages:

Department management, Mathias:

- Søren Vangsgaard started as new field manager at Flakkebjerg 01-06-2022
- New fundraiser (in Flakkebjerg): Lea Eriksen. Roles between Lea and Torsten should be identified.
- Consumption on external projects for the rest of the year: Plans for their use or transfer to 2023
- Final deadline for transfers will be 1st October (Mail from JEO 28/6) due to new budget model from 2023.
- Energy savings: AU electricity bill projected to increase 70-80 mill kr. in 2022. All are encouraged to take responsibility here.
- Staffing plan: A few still have more than 12 staffing months in 2022.

- Viborg municipality green festival 16-17 September (mail from Anne Sofie Nielsen 19/8)
- Sukkerroeafgiftsfonden <https://sukkerroeafgiftsfonden.dk/> deadline 1.9.
- Living labs study tour for section leaders by end of September.
- Midterm examination for Imran today at 13.00.

### **Updated guidelines for guests, Jytte**

AGRO guidelines for hiring personnel and inviting guest are updated at the intranet <https://agro.medarbejdere.au.dk/en/personnel-and-hiring>. It is easy to find relevant information for the personnel category you plan to hire or invite.

Some highlights for guests:

- When planning a guest visit it is mandatory to contact Mathias and Jytte as early as possible in the process. Your request may be rejected.
- Online interview to ensure language skills and matching of expectations.
- Two forms to be filled (the forms are attached) before visa application is started:
  - Agreement for stay at AGRO (matching of expectations)
  - Visitor participation agreement (ownership of data etc.)
- Approx. one month before start, the guest registration form <https://agro.medarbejdere.au.dk/anmodning-om-ansattelse-og-ophold-ved-agrooekologi> has to be filled.

### **Other messages:**

Cross cultural communication workshop 29 September.

### **Ad 7: Social event**

- Excursion 22 August
- Foulum Staff Club arrangements <https://medarbejdere.au.dk/en/administration/overview-of-au-administration/administration-centre-nat-tech/for-medarbejdere-i-administrationscenter-nat-tech/personaleforening-for-administrationscenter-nat-tech/pffaudk>

### **Ad 8: AOB**

Nothing

### **Ad 9: Presentation of publications**

- a. Laura Harbo et al.: [Estimating organic carbon stocks of mineral soils in Denmark: impact of bulk density and content of rock fragments](#)



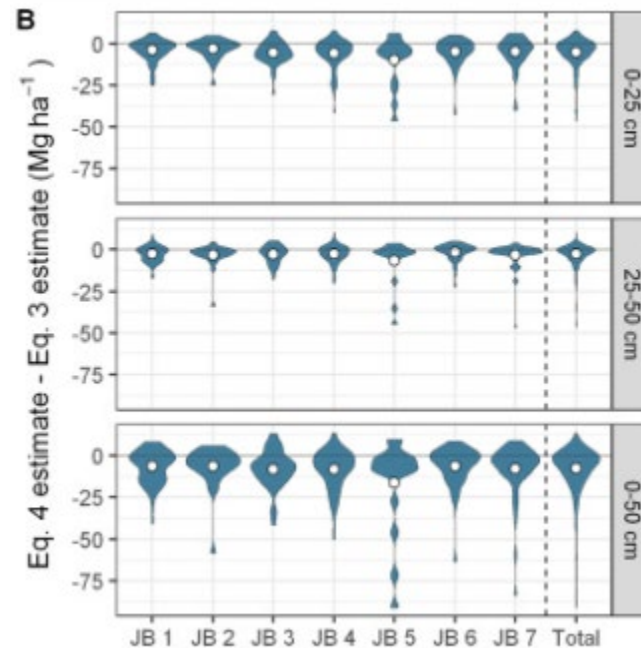
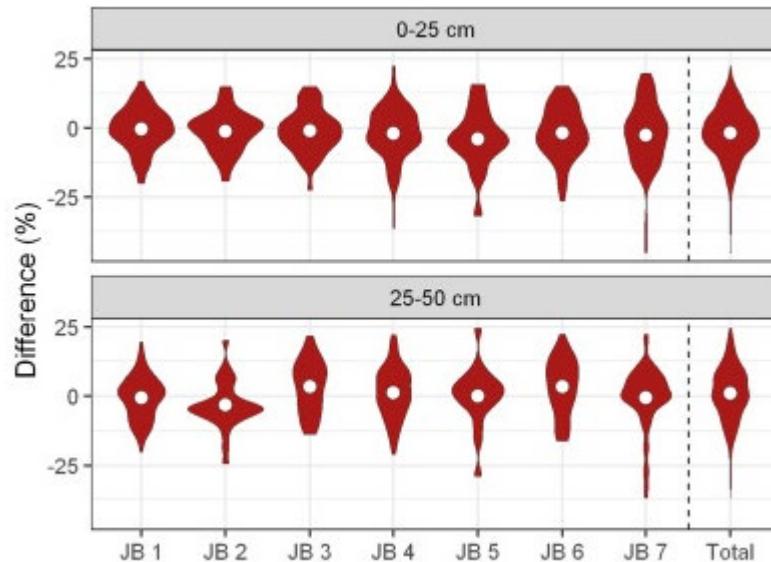
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# Estimating organic carbon stocks of mineral soils in Denmark: Impact of bulk density and content of rock fragments

Laura Sofie Harbo <sup>a, b, c</sup> ✉, Jørgen E. Olesen <sup>a, b, c</sup>, Zhi Liang <sup>a, c</sup>, Bent T. Christensen <sup>a</sup>, Lars Elsgaard <sup>a, c</sup>

## Effect of change in calculation method

### Relative effect of bulk density



- Using site-specific bulk density gives a random error (5% on average)
- Neglecting rock fragment is a systematic bias, scales with rock fragment.
- Under Danish conditions, visual estimates of rock fragments were sufficient in categories (0-5%, 5-10%, 10%+),
- For national inventories of SOC, database values for bulk density are sufficient.
- Site-specific data is necessary for field-scale estimates of SOC, e.g. for carbon credits.



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

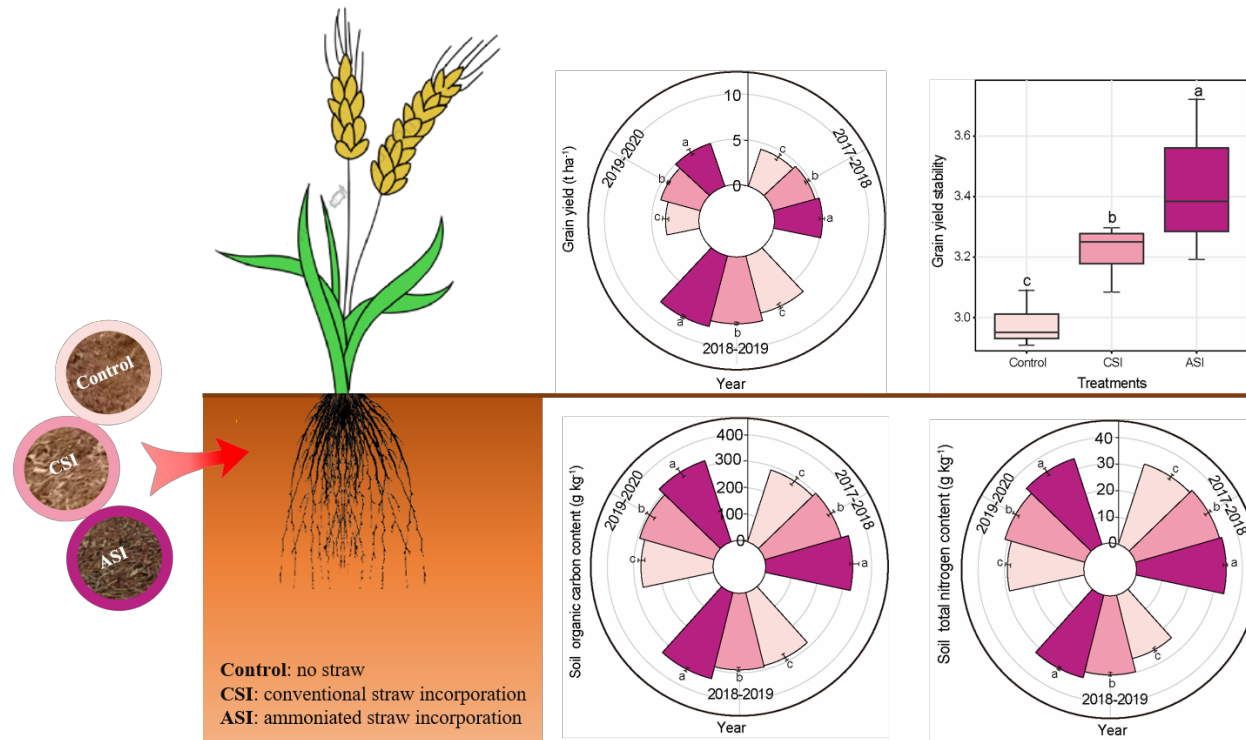
Field Crops Research

journal homepage: [www.elsevier.com/locate/fcr](https://www.elsevier.com/locate/fcr)



## Ammoniated straw incorporation increases wheat yield, yield stability, soil organic carbon and soil total nitrogen content

Yue Li <sup>a,c</sup>, Hao Feng <sup>a,b,d,\*</sup>, Qin'ge Dong <sup>a,b,d,\*</sup>, Longlong Xia <sup>g</sup>, Jinchao Li <sup>a</sup>, Cheng Li <sup>a</sup>, Huadong Zang <sup>h</sup>, Mathias Neumann Andersen <sup>c</sup>, Jørgen Eivind Olesen <sup>c</sup>, Uffe Jørgensen <sup>c</sup>, Kadambot H.M. Siddique <sup>e</sup>, Ji Chen <sup>c,f,i,\*\*</sup>

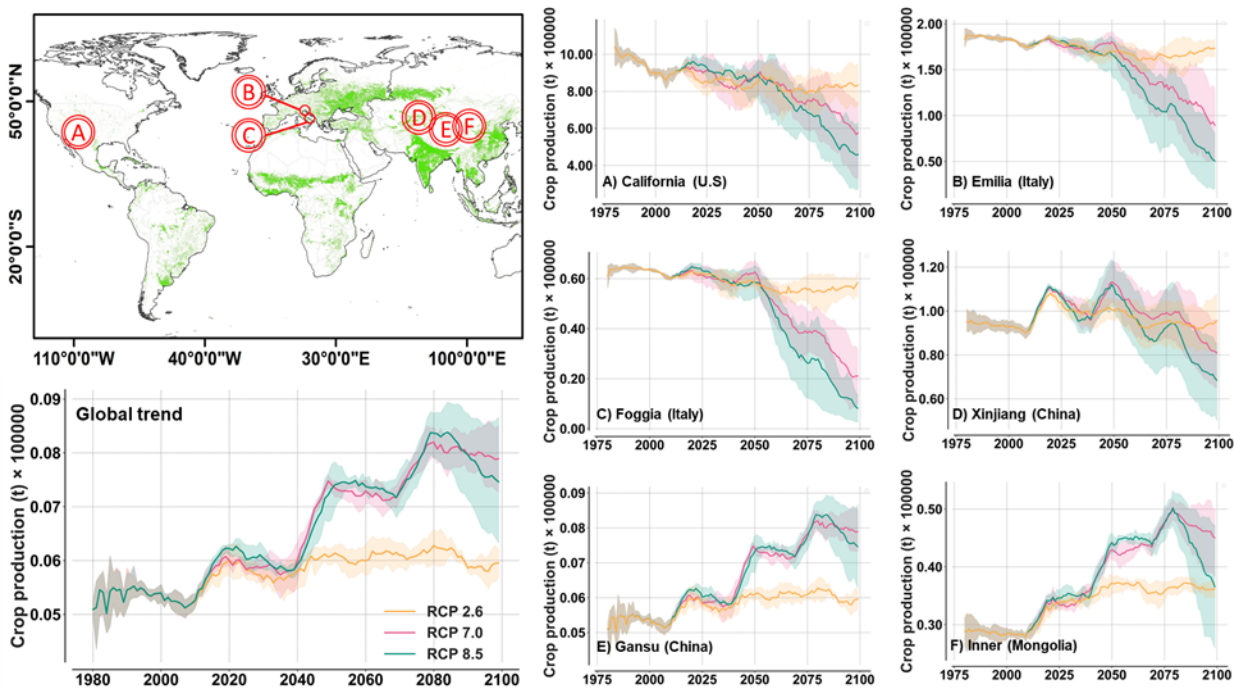




# Processing tomato production is expected to decrease by 2050 due to the projected increase in temperature

Davide Cammarano<sup>1</sup>✉, Sajad Jamshidi<sup>2</sup>, Gerrit Hoogenboom<sup>3</sup>, Alex C. Ruane<sup>4</sup>, Dev Niyogi<sup>2,5</sup> and Domenico Ronga<sup>6</sup>

Processing tomato (field grown) are important because they are used for tomato paste/tomato sauce/ketchup products. Common mistakes are to consider “tomato” all the different plants (the FAO-Stat makes the same mistake).



**Figure 1.** Global processing tomato production simulated from 1980 to 2010 for the RCP 2.6 (orange line), RCP 7.0 (pink line), and RCP 8.5 (green line) in the main production areas of (A) California, (B) Emilia (Italy), (C) Foggia (Italy), (D) Xinjiang (China), (E) Gansu (China), and (F) Inner Mongolia (China). The shaded area represents the variability of simulated impacts due to the 5 GCM used.

## Processing tomato (determinate growth)



*Note: quite a bit of news coverage from many countries' National radios and newspapers*

## Fresh consumption tomato (indeterminate growth)








Global processing tomato production will decrease by 6, 7% and 9% by 2050 (for different climate- and socio-economic pathways).

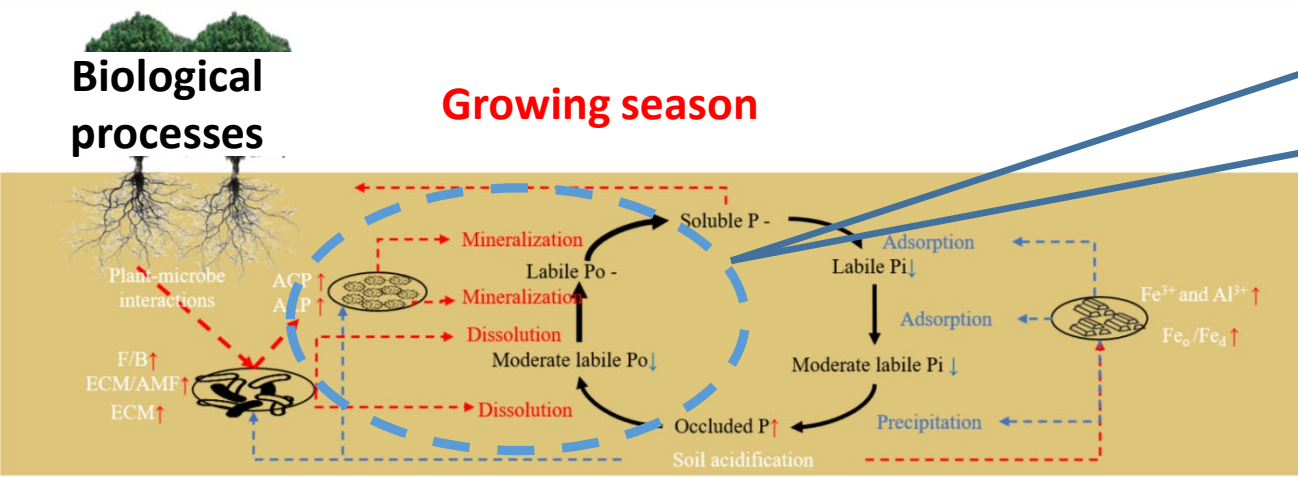
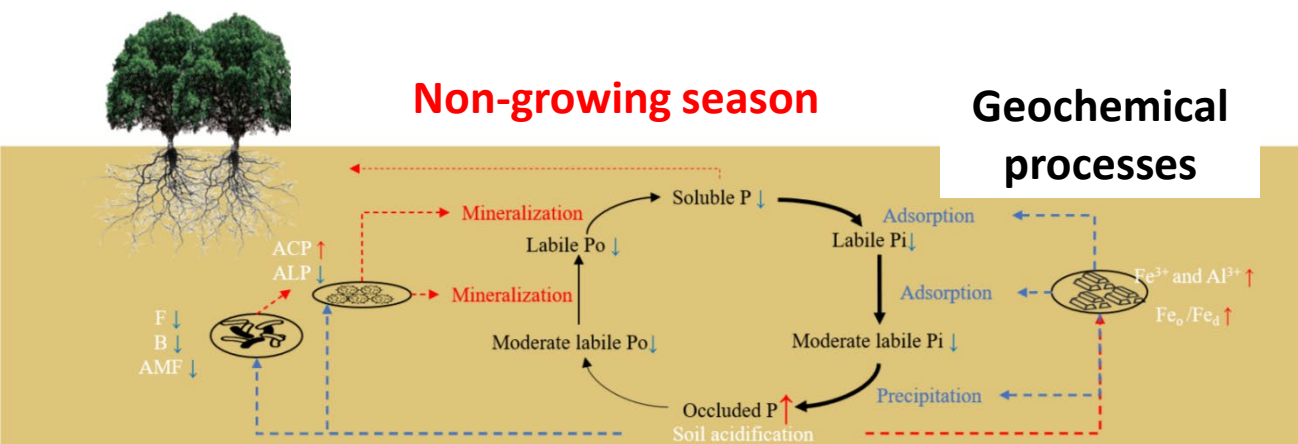
In China the projected water requirements will be lower respect to the ones of California and Italy.

China has a potential to become the most important region for processing tomato production by 2050 overtaking California as a main processing tomato production.



# Mycorrhizal fungi alleviate acidification-induced phosphorus limitation: Evidence from a decade-long field experiment of simulated acid deposition in a tropical forest in south China

Yuanliu Hu<sup>1,2,3,4,5</sup> | Ji Chen<sup>5,6,7</sup>  | Dafeng Hui<sup>8</sup>  | Ying-Ping Wang<sup>9</sup>  |  
Jianling Li<sup>1,2,3</sup>  | Jingwen Chen<sup>1,2,3,4</sup> | Guoyin Chen<sup>1,2,3,4</sup> | Yiren Zhu<sup>1,2,3,4</sup> |  
Leiyi Zhang<sup>1,2,3</sup> | Deqiang Zhang<sup>1,2,3</sup> | Qi Deng<sup>1,2,3</sup> 



Acidification-induced P limitation could be alleviated by stimulating ectomycorrhizal fungi and P-mineralization enzyme activities