EUBCE 2024
32nd European Biomass Conference & Exhibition

EXPERT WORKSHOP
ENVIRONMENTAL SUSTAINABILITY OF CROPS FOR BIO-BASED INDUSTRIES IN EUROPE

Wednesday 26 June 2024 - 12.00-15.45 Room Samena

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Question 1: Select the 1-2 types of primary crops used in industrial biorefineries producing bio-based chemicals, materials, products that you will present: what are the volumes or areas of such crop(s) in the EU and what are the uses (e.g., final products, intermediate chemicals, etc.)?

- Camelina :
  - EU : ~ 10000 ha ? (Zanetti et al., 2021)
  - France <2 000 ha for 2021 surface registration (CAP)

- Sorghum :
  - 375 000 ha for EU and grain sorghum
  - 209 000 ha EU for forage
  - France : 40 000 to 60 000 ha
  - No registration of sorghum dedicated to bio industry

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Question 2: What are the main relevant environmental impacts related to the cultivation of the selected crops?

- Negative impact
  - Fertilization
  - Fuel (depend on soil tillage)
  - Land use among the cropping systems

- Positive Impact
  - Diversification
  - Biodiversity
  - Land cover among the cropping systems

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Question 3 - What are the main 'best available practices/technologies' to grow such agricultural crops minimizing the impacts and maximizing the benefits for the environment?

- Cropping systems :
  - Double cropping systems = best way to decrease land use
  - Interest but quite risky! : impact on the following foof/feed primary crop ? Water balance ?

- Fertilization :
  - Low input species : how to fertilize with green Nitrogen ?
  - Intercropping ? research ongoing

Need further research for camelina to better characterize allelopathic potential → high interest for cereal production to decrease herbicide or adapt to resistance issues

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