



**Food and Agriculture
Organization of the
United Nations**



Module 6

Hands-on exercise

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Base exercise:

- You will try to understand whether it makes sense to anticipate the sowing date for maize grown in Cahul. You will provide your explanations on why you think this may be a good strategy, using AquaCropPlotter.

Bonus exercise:

- You will now check whether the previous results are consistent across different climate models. Do you get similar results?
- What happens if you now include irrigation?

The full background information can be found [here](#)

Access the AquaCropPlotter [here](#)



Steps-base exercise

- Download the base_proj_files folder from GitHub (if you have already downloaded the whole repo, simply navigate to material for training sessions/Crop_Module_6/Base_files)
- Copy and paste all the information into the data folder of AquaCrop GUI
- Create your project file and name it as **Maize_Cahul_7May_Optimum_26_MOHC (recap in the next slide)**



Make sure that all
the required
input parameters
are selected

Press the
“Project” button
to create the
project file

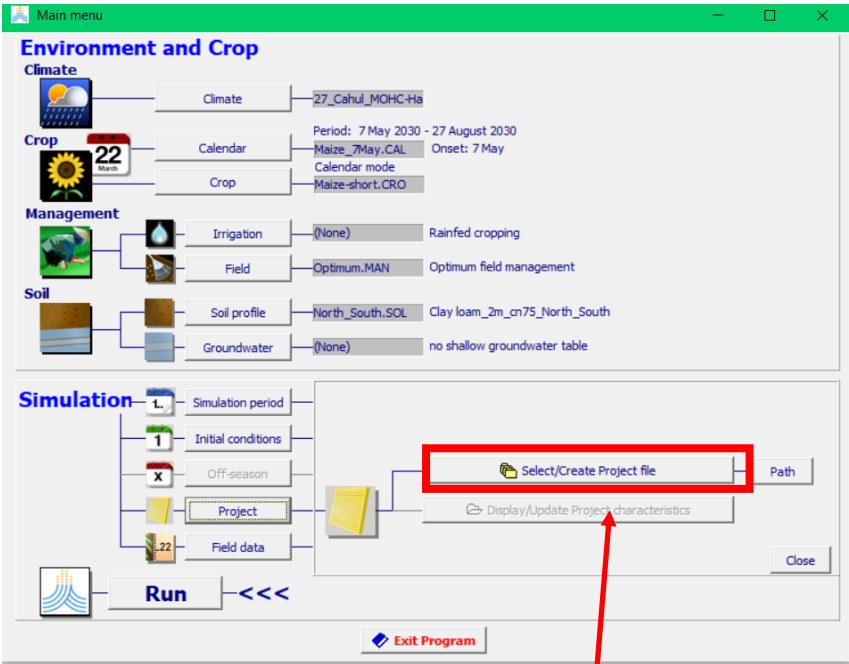
The screenshot shows the 'Main menu' window with the following sections and parameters:

- Environment and Crop**
 - Climate**: Climate (27_Cahul_MOHC-Ha)
 - Crop**: Calendar (Maize_7May.CAL), Crop (Maize-short.CRO)
 - Management**: Irrigation ((None)), Field (Optimum.MAN)
 - Soil**: Soil profile (North_South.SOL), Groundwater ((None))
- Simulation**
 - Simulation period (Simulation period: from 7 May 2030 - to 27 August 2030)
 - Initial conditions (half_field.SW0)
 - Off-season (Simulation period linked to cropping period)
 - Project** ((None) - No specific project)
 - Field data ((None) - No field observations)

At the bottom, there is a 'Run' button with a '<<<' icon and an 'Exit Program' button.

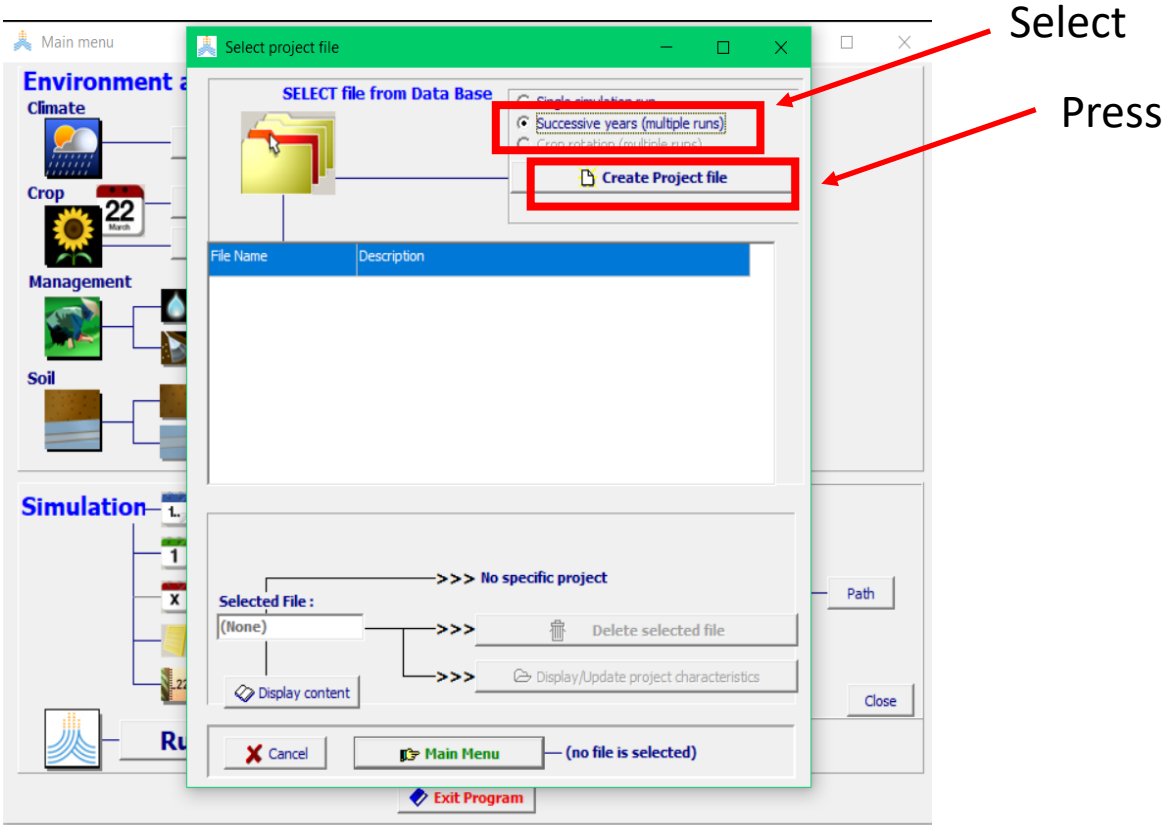


1



Press

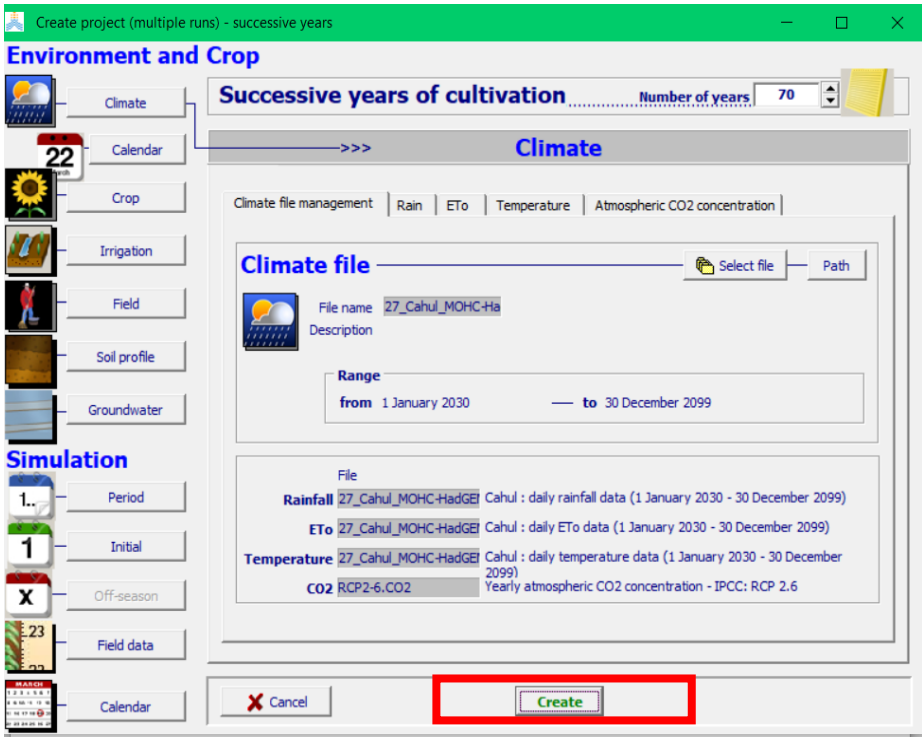
2



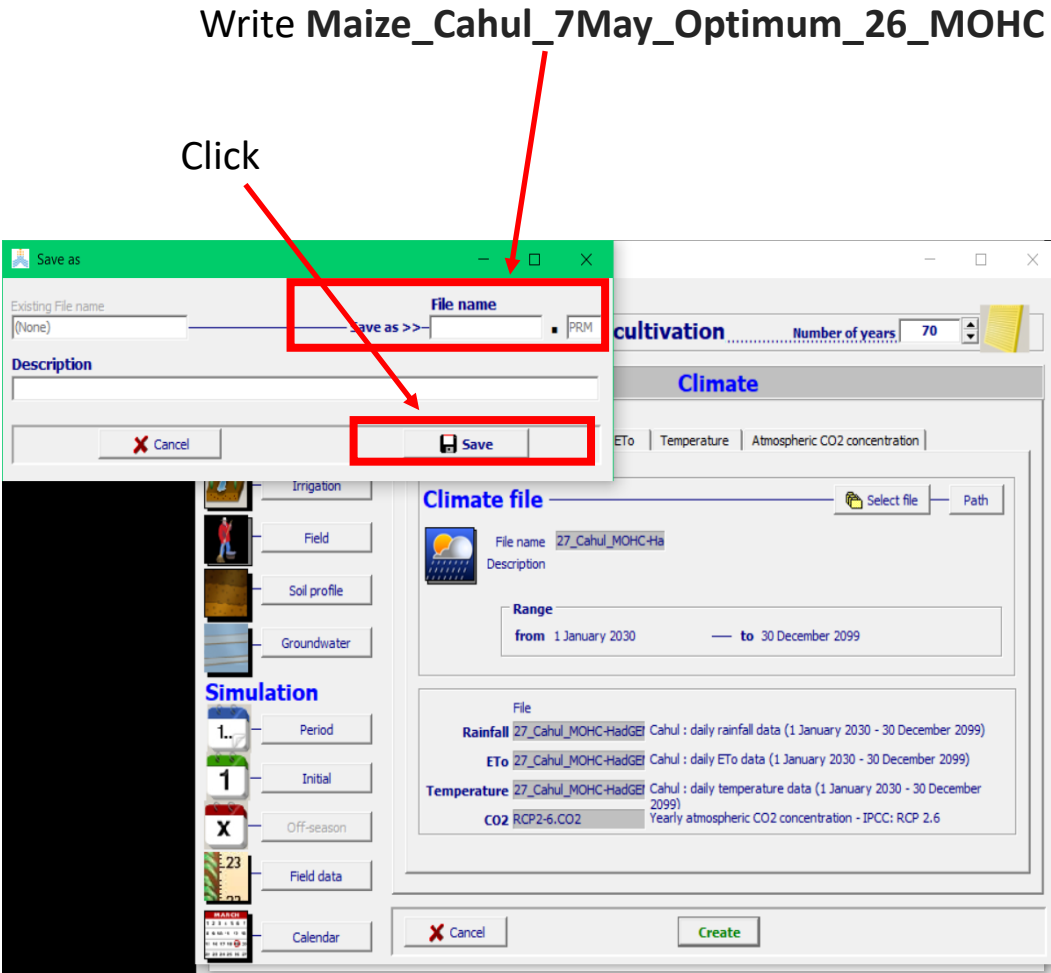


How to create the Project file Maize_Cahul_7May_Optimum_26_MOHC

1



2





- Make a new project with a different sowing date (15th of April).
 - Open the newly created project file.
 - Press display
 - Environment, Crop and Simulations files
 - Update
 - Calendar
 - Select 15th April
 - Accept and save as **Maize_Cahul_15April_Optimum_26_MOHC**
- Copy your PRM files (you can find them in the DATA folder) to the List folder in the AquaCrop plug-in
- Run the aquacrop.exe program
- Copy and paste the PRM files and OUT files to a new folder and upload everything in AquaCropPlotter



Steps- bonus exercise

- Think that you now need to create 4 project files (2 climate models, 2 sowing dates)
- When you name your project files, consider that you now need to consider an additional climate model (example below)
- What happens now if you include irrigation?

Maize_Cahul_15April_Optimum_26_MOH

Maize_Cahul_7May_Optimum_26_MOH

Maize_Cahul_15April_Optimum_26_MPI

Maize_Cahul_7May_Optimum_26_MPI

Thank you!

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