# Article information:

Impacts of rising temperature, carbon dioxide concentration and sea level on wheat production in North Nile delta - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S0048969718341007>

# Article summary:

1. DSSAT models were used to simulate the phenology and wheat yield of a local cultivar (Misr3) grown under irrigated conditions in Egypt.

2. Rising temperature by 1°C to 4°C decreased wheat yield by 17.6%, while higher levels of CO2 alleviated some of the negative temperature impacts.

3. Sea level rise by 2.0 m will reduce the extent of agricultural land on the North Nile Delta of Egypt by ~60%, creating an additional challenge to wheat production in this region.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article “Impacts of rising temperature, carbon dioxide concentration and sea level on wheat production in North Nile delta” is a scientific study that examines the effects of climate change on wheat production in Egypt’s North Nile Delta region. The article is written from a scientific perspective and provides evidence-based conclusions based on data collected from two growing seasons during 2014/2015 and 2015/2016 using DSSAT crop models calibrated with a local cultivar (Misr3). The article is well-structured, providing clear explanations for each step taken in the research process, as well as detailed results and conclusions drawn from the data analysis.

The trustworthiness and reliability of this article can be assessed based on several criteria, including its potential biases, one-sided reporting, unsupported claims, missing points of consideration, missing evidence for claims made, unexplored counterarguments, promotional content, partiality, whether possible risks are noted or not presenting both sides equally. In terms of potential biases, it appears that the authors have attempted to remain impartial throughout their research process and have provided sufficient evidence to support their findings. Furthermore, there does not appear to be any one-sided reporting or promotional content present in the article; rather it presents both sides equally and objectively evaluates all available evidence before drawing conclusions. Additionally, all claims made are supported with evidence from experiments conducted during the research process and no counterarguments are left unexplored or ignored.

In terms of missing points of consideration or missing evidence for claims made, it appears that there may be some gaps in information regarding how different environmental factors interact with each other when it comes to affecting wheat production in this region; however this could be due to limitations in available data rather than any fault on behalf of the authors. Additionally, although possible risks associated with climate change are mentioned briefly at various points throughout the article they are not discussed at length which could be seen as a limitation given that these risks could have significant implications for food security in this region if left unchecked.

In conclusion, overall this article appears to be trustworthy and reliable; however further research into how different environmental factors interact with each other when it comes to affecting wheat production would help provide more comprehensive insights into how climate change is impacting food security in this region.

# Topics for further research:

* Climate change and food security
* Interaction of environmental factors and wheat production
* Impact of rising temperature on wheat production
* Impact of carbon dioxide concentration on wheat production
* Impact of sea level on wheat production
* Mitigation strategies for climate change in North Nile Delta

# Report location:

<https://www.fullpicture.app/item/8318cfb96128e81d72cb9a8fb30303ba>