# Article information:

How could observed sowing dates contribute to maize potential yield under climate change in Northeast China based on APSIM model - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S1161030122000594?via%3Dihub>

# Article summary:

1. The observed sowing dates in Northeast China (NEC) have been delayed by 1-6 days per decade, but there are significant fluctuations among years.

2. Delaying sowing dates reduced the solar radiation interception during the vegetative period as well as the thermal time during the reproductive period, resulting in a 0.6% decrease in potential yield for each day delay in sowing dates.

3. Advancing sowing dates had different effects on potential yield across different parts of NEC; it had a positive effect on potential yield in high latitudes, but a negative effect in low latitudes.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article is generally reliable and trustworthy, as it provides evidence to support its claims and presents both sides of the argument equally. The authors use phenology observations from 67 stations over 34 years to detect trends in actual sowing dates, and then use the APSIM-Maize model to assess the effects of changes in observed sowing dates on maize phenology and yields. This provides a comprehensive analysis of how climate change has affected maize production in NEC, and how adjusting sowing dates can be used as an effective measure to adapt to climate change.

The article does not appear to have any major biases or one-sided reporting; all points are presented fairly and objectively. There are no unsupported claims or missing points of consideration; all relevant information is included and discussed thoroughly. The authors provide evidence for their claims, such as data from phenology observations at 67 stations from 1981 to 2014, which adds credibility to their arguments. Furthermore, they explore counterarguments by looking at how advancing sowing dates affects potential yield across different parts of NEC; this shows that they have considered multiple perspectives when writing the article.

The article does not contain any promotional content or partiality; it is purely focused on providing an objective analysis of how climate change has affected maize production in NEC and how adjusting sowing dates can be used as an effective measure to adapt to climate change. Possible risks are noted throughout the article; for example, delaying sowing dates could reduce solar radiation interception during the vegetative period as well as thermal time during the reproductive period, resulting in a decrease in potential yield for each day delay in sowing date.

In conclusion, this article is reliable and trustworthy due to its comprehensive analysis of how climate change has affected maize production in NEC and its objective presentation of both sides of the argument without any biases or one-sided reporting.

# Topics for further research:

* Climate change adaptation strategies
* Maize production in Northeast China
* Effects of sowing date on maize yield
* Phenology observations in Northeast China
* Solar radiation interception in maize production
* Thermal time in maize production

# Report location:

<https://www.fullpicture.app/item/c9b3502748e48c6d74fbfa7f9174aae6>