# Article information:

Integration of high-throughput phenotyping, GWAS, and predictive models reveals the genetic architecture of plant height in maize - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S167420522200435X?via%3Dihub>

# Article summary:

1. An automated high-throughput phenotyping platform was developed to systematically and noninvasively quantify 97 traits for 228 maize inbred lines across all developmental stages.

2. A genome-wide association study identified 4945 trait-associated SNPs, 2603 genetic loci, and 1974 corresponding candidate genes.

3. Machine learning was used to build predictive models for final PH based on i-traits, and their performance was assessed across developmental stages.

# 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 “Integration of high-throughput phenotyping, GWAS, and predictive models reveals the genetic architecture of plant height in maize” is a well-written piece that provides an overview of the research conducted by the authors on the genetic basis controlling plant height in maize. The article is reliable as it provides detailed information about the methods used in the study as well as results obtained from it. Furthermore, the authors have provided evidence to support their claims by citing relevant literature throughout the article.

However, there are some potential biases present in this article that should be noted. For example, the authors have not discussed any possible risks associated with using machine learning algorithms to predict plant height or any other potential implications of their findings. Additionally, they have not presented both sides equally when discussing previous studies related to plant height in maize; instead they have focused mainly on studies that support their own findings while ignoring those that do not agree with them.

In conclusion, this article is generally reliable and trustworthy but could benefit from more balanced reporting and discussion of potential risks associated with its findings.

# Topics for further research:

* Plant height risk assessment
* Machine learning algorithms implications
* Plant height genetic architecture
* Maize plant height studies
* High-throughput phenotyping
* GWAS predictive models

# Report location:

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