

## Agronomy Special Issue “Implications of Climate Change for Weed Evolution and Herbicide Efficacy”



With atmospheric CO<sub>2</sub> increasing approximately 30% since the 1950s, resulting in widespread changes in temperature, precipitation, and extreme weather events, weed management implications are inevitable. Weed responses to atmospheric carbon and climate change frequently differ from crop responses. Furthermore, herbicide efficacy is altered under these changing conditions. Of central importance to addressing these issues is understanding how weeds evolve. It is clear weeds are highly capable of evolving herbicide resistance, but climate change is also a selection pressure that is not as well studied. Climate change is frequently classed as a wicked problem, meaning the problem is virtually intractable due to its dynamic complexity. Similarly, weeds tend to evolve rapidly, also presenting a moving target. There is an urgent need for improved understanding of the interactions between climate change and herbicide efficacy as mediated by weed evolution.

This Special Issue will take on the wicked problem presented by weed evolution under climate change and its potential impacts on herbicide efficacy. I welcome submissions of novel research or reviews on any related topics including the relationship of climate change to weed ecophysiology, weed epigenetics and plasticity, herbicide technology, herbicide resistance, weed and crop phenology, weed distribution changes, and holistic management approaches.

Please let me know if you are interested in contributing an article. More details are on the website below, but note the deadline is being extended to Oct. 15<sup>th</sup>.

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Website: [https://www.mdpi.com/journal/agronomy/special\\_issues/Chemical-Weed](https://www.mdpi.com/journal/agronomy/special_issues/Chemical-Weed)

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