# *This template provides section headings and instructions for Weed Technology manuscripts. When using the template to format a manuscript, insert your own text and remove this paragraph and the section instructions. Retain line numbering.*

# Short title: Maximum of 30 characters and spaces

# The full title should be no more than 200 characters and spaces, centered, in bold, sentence case and should include words useful in online searches. Scientific names in the title should be given in full (without authority).

Author One1, Author Two2, and Author Three3

ORCID iD is required for corresponding author. Provide details for each author of professional affiliation at the time the research was conducted, using this format:

1Author Job Title (ORCID 0000-000x-xxxx-xxxx), Department (if applicable), Institution, City, State, Province or Territory abbreviation, Country; 2Author Job Title, Department (if applicable), Institution, City, State, Province or Territory abbreviation, Country; and 3Department (if applicable), Institution, City, State, Province or Territory abbreviation, Country

**Author for correspondence:**

Corresponding Author Name; Email: xxx@institution.edu

**Abstract**

The abstract should be a single paragraph of no more than 300 words that provides an objective and informative digest of the significant content of the paper, not simply a description of the contents. Use only common names in the abstract for herbicides, plants, animals, and microorganisms. Do not include citations. At the first mention of a herbicide rate, express the rate either on the acid equivalent (ae) basis or active ingredient (ai) basis. Omit trade names for herbicides, other pesticides, and surfactants or other adjuvants in the abstract.

**Nomenclature**

List each common name appearing in the title and abstract, followed by the binomial and the authority. For herbicides, use ISO-approved common names or other designations. Bayer codes may be included for weeds, but are not required. The preferred order is herbicides, weeds, and crops, alphabetized within each group. Scientific names given in the nomenclature should not be repeated in the main text of the article.

Example: **Nomenclature:** Glyphosate; 2,4-D; cheat, *Bromus secalinus* L. BROSE; wild oat, *Avena fatua* L. AVEFA; corn, *Zea mays* L.

**Keywords:** Up to 8additional words from the manuscript that will direct online searches to the article. Alphabetical, lower case.

**Introduction**

Begin on a new page. The Introduction should provide context for the work presented in the manuscript by reviewing other relevant research and citing key references. Include a summary of the research goals or other aims of the work.

## Materials and Methods

This section should provide sufficient information to allow others to replicate the research described. **Any use of AI tools in manuscript preparation, including large language models such as ChatGPT, must be described in this section.** Describe novel methods in detail; established research protocols can be described more briefly and appropriate citations provided. **The design of experiments reported here should allow appropriate statistical analysis; in most cases that will require replication in time and/or space.** Show sources of materials in parentheses following the first mention; for equipment, provide a brief description of the item, model number (if applicable), and the source. Example: Plots were treated with glyphosate (Roundup WeatherMax®, 540 g ai L-1, Bayer).” Commercially available software packages (e.g. SAS/STAT) should be cited in this way and not in the references. Freely available software described in the peer-reviewed literature (e.g. R) should be referenced by citing the relevant article in the text and in the references section. If five or more herbicides are mentioned, list them in a Table providing herbicide common and trade names; herbicide formulation (if necessary); herbicide rate(s) in active ingredient or acid equivalent; name of respective herbicide manufacturer; and herbicide manufacturer city, state, and website. Include latitude and longitude coordinates for field locations by specifying the coordinates in parenthesis e.g. “Vegetable Crop Research Farm in Champaign, Illinois (40.08⁰N, 88.26⁰W).”

## Results and Discussion

These are combined as one section, but italicized subheadings can be used.

***Example of a Subheading***

There is no separate Conclusion section. Provide a clear and precise description of the experimental results and how they were interpreted, including details of statistical analyses. Use tables and figures where appropriate to present data; cite them in the text as Table 1, Figure 1 etc. and attach them to the end of the manuscript (see below). Discuss the results in the broader context of previous research, and describe their implications for the research goals and/or working hypotheses presented in Materials and Methods.

## Practical Implications

Provide up to a one-page description of the importance of this work to the field practitioner. This section should be a clearly written explanation of how the work can be used currently or in the future for improved weed management. It should not be a rewording of the Abstract. The Practical Implications section is only required for original research articles and not for review articles.

**Acknowledgments**

Individuals who contributed to the research but who do not meet the criteria for authorship may be acknowledged in this section.

**Funding**

Authors must disclose all funding received to support the research described in the manuscript by describing and acknowledging funding sources in this section. Where no specific funding was provided for research, provide the following statement: "This research received no specific grant from any funding agency, commercial or not-for-profit sectors."

**Competing Interests**

A competing interest declaration is required. Competing interests are situations that could be perceived to exert an undue influence on the content or publication of an author’s work. They may include, but are not limited to, financial, professional, contractual, or personal relationships or situations. If the manuscript has multiple authors, include competing interest declarations relevant to all contributing authors. Example: “Competing interests: Author 1 is employed at organization A, Author 2 is on the Board of company B and is a member of organization C. Author 3 has received grants from company D.” If no competing interests exist, the declaration should state “Competing interests: The author(s) declare none."

References

Begin on a separate page and list citations alphabetically by author. Each citation should include the names of all authors, year of publication, complete title, publication, volume number, and inclusive pages, in that sequence. Theses and dissertations may appear in References, but do not cite or footnote abstracts more than 3 years old unless the information contained is of vital importance and has not been reported elsewhere. Preprints and unpublished materials are not permitted in the References section but can be cited parenthetically in the text. For additional formatting details see <https://www.cambridge.org/core/journals/weed-technology/information/author-instructions/preparing-your-materials>

**Table**s

Present each table on a separate page. Use common name for weeds and other non-crop species in the table title. Redefine all abbreviations used in the table, even if the definition has already been given in the text. All text within each table should be in lower case letters except for the first word of a phrase or sentence, and proper nouns that should have initial capitals. Column headings should relate to data or information in the body of the table. For detailed WSSA Table Formatting instructions see: <https://www.cambridge.org/core/journals/weed-technology/information/author-instructions/preparing-your-materials>

**Figures**

Attach figures to the end of the manuscript with the figure legends (as editable text) directly beneath them. Color graphics and photographs are welcome. Include data points with plotted curves, and provide equations with predicted curves or in figure legends. If an explanation of symbols is required, include the key in the figure. Scale bars included in photomicrographs should be placed directly on the image.

For details of image formatting and acceptable file types, see <https://www.cambridge.org/core/services/authors/journals/journals-artwork-guide>.