Instructions to Authors of Manuscripts for the Journal of Plant Registrations – 2013

General Requirements and Scope

Papers must be new reports of plant cultivars, parental lines, germplasm, genetic stocks, or mapping populations. Plant material categories are fully described in the Definitions section of this document; unless otherwise mentioned all categories will be referred to hereinafter as “plant material.” The Journal of Plant Registrations (JPR) will accept registrations of plant material with documented novel and unique characteristics compared with available accession sources of a particular species. Plant material must be officially released by the originating organization (public or private) prior to manuscript submission. Perspective or review papers on historical plant material, the registration process, or related topics may also be accepted with approval of the editor and after review. Letters to the editor are welcomed and published subject to review. When letters concern previous articles, the authors will be invited to reply. The letter and reply are published together. Submissions to the Journal of Plant Registrations may not be previously published or simultaneously submitted to any other scientific or technical journal. The Publications Handbook and Style Manual (ASA-CSSA-SSSA, 2012) is the guide to writing style and is available at https://www.crops.org/publications/style/

Registration Submission Procedures

Manuscripts should be submitted to the editor through the Manuscript Central system as MS-Word files. Figures should be submitted as separate files. The URL for submission is http://mc.manuscriptcentral.com/plantreg. A link is also available under Submissions in the right-hand menu on the Journal of Plant Registrations Web site: https://www.crops.org/publications/jpr

In addition, prior to acceptance of the manuscript by the journal, the following forms and seed samples are required:

• NCGRP Storage Information Form (http://www.ars.usda.gov/Aboutus/docs.htm?docid=16963)
• Seed sample deposited with the NCGRP according to instructions on the Storage Information Form.
• The form for ordering registration certificates can be accessed at https://www.crops.org/files/publications/jpr-reg-form.pdf or via the link “Order Form for Registration Certificates” at https://www.crops.org/publications/authors. Issuance of registration certificates is not automatic. This form must be submitted to request a registration certificate but is not required for publication.

Links to most of the above forms and to other helpful resources are listed at https://www.crops.org/publications/authors

Prior to acceptance of the manuscript by the journal, the NCGRP must have received a hard copy (or a copy faxed to 970-221-1427) of the NCGRP Storage Information Form and a seed sample of each plant material accession registered (amount specified on the NCGRP Storage Information Form) must be deposited with the NCGRP. Each germplasm accession will be assigned a PI number and placed in the NPGS and will be available for distribution to scientists according to policies of the NPGS. Protected germplasm will not be distributed without the originators’ approval until the protection expires. For PVP and crop utility patents, this term is 20 years. Delay in submission of a storage sample is the most significant cause of delay in acceptance of registration manuscripts. It is strongly recommended that submission to NCGRP occur at the time of manuscript submission for review.

Purpose of Registration

The purpose of registration is to present new scientific information and impact future research by providing a description of new plant material to scientists worldwide. Additionally, registration allows a thorough documentation of plant material submitted to the USDA-ARS National Plant Germplasm System (NPGS). The Crop Science Society of America (CSSA) endorses continuation of free exchange of germplasm. To be registered, plant material must be available for research and breeding. Both nonexclusive and exclusive releases may be registered. However, restricted-use releases must be made available to the public without restriction upon expiry of protections (such as patents, Plant Variety Protection, or material transfer agreements), which may not exceed 20 years, except as noted below in the Availability section. Registration of plant material is coordinated by the Crop Registration Committee of the Crop Science Society of America (C852) in cooperation with the USDA–ARS–NPGS. A sample of each accession registered must be deposited by the registrant into the collection of the USDA–ARS National Center for Genetic Resources Preservation (NCGRP) in Ft. Collins, CO, to ensure long-term preservation and to facilitate distribution of these plant materials.
Manuscript Preparation and Format
Manuscripts should include the following sections:

- Title and byline
- Author
- Abstract
- Author information; paper documentation
- Abbreviations used in the paper and other necessary footnotes
- Introduction (including literature review)
- Materials and Methods
- Characteristics (this section is unique to JPR and replaces Results)
- Discussion
- Availability (this section is unique to JPR)
- Conclusions
- Acknowledgments (optional)
- References
- Figure captions (figures themselves should be submitted as separate files)
- Tables

The style manual (https://www.crops.org/publications/style/) describes the content and format of all sections with additions specific to the JPR described below.

Section Details Pertinent to JPR

Abstract
The abstract is a condensed version of the entire manuscript. The abstract should include a rationale for the development of the plant materials, a statement of objectives, a description of breeding methods, description of primary characteristics of the plant materials, and a conclusion describing the impact of the release of the plant materials. The abstract will also include the following information: (i) the name or identification of the plant materials assigned at the time of release; (ii) scientific name (genus-species binomial name, including the authority); (iii) the following in parentheses (Reg. No. _____, PI ______); (iv) experimental number or designation used during development; and (v) names of institutions involved in official release and development. The abstract should be no longer than 250 words or about 1500 characters (including word spaces). Do not cite references here.

Abbreviations
Prepare a list in alphabetical order of abbreviations used in your article. Do not include SI units, chemical abbreviations, or most common abbreviations, such as those listed in the style manual.

Introduction
The introduction provides the background and rationale for the presented work and should include appropriate supporting references from the scientific literature. Cite the justification for development of the new materials, which can include current production, disease, insect, and quality concerns for the crop or species. Scientific objectives and/or hypotheses should be clearly stated. At first mention in the text, include the name or identification assigned to the plant material at the time of release, the scientific name (genus-species binomial name, including the authority), and the following in parentheses (Reg. No. _____; PI ______). An explanation of the name and other pertinent information may also be included.

Materials and Methods
Describe the breeding method (e.g., single-seed descent, modified bulk, selected bulk, early-generation testing,

Table 1. CSSA crop registration subcommittees charged with review of registration manuscripts for cultivars, germplasm, parental lines, genetic stocks, and mapping populations, with the common and scientific names of the crops.

<table>
<thead>
<tr>
<th>Crop subcommittee, crop names</th>
<th>Single-crop subcommittees</th>
<th>Crop subcommittee, crop names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa, Medicago sativa L.</td>
<td>Rice, Oryza sativa L.</td>
<td></td>
</tr>
<tr>
<td>Barley, Hordeum spp.</td>
<td>Soybean, Glycine max (L.) Merr.</td>
<td></td>
</tr>
<tr>
<td>Cotton, Gossypium spp.</td>
<td>Sugarbeet, Beta vulgaris L.</td>
<td></td>
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<tr>
<td>Maize, Zea mays L.</td>
<td>Sugarcane, Saccharum spp.</td>
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<tr>
<td>Oat, Avena sativa L.</td>
<td>Wheat, domestic varieties, Triticum spp.</td>
<td></td>
</tr>
<tr>
<td>Peanut, Arachis hypogaea L.</td>
<td>Wheat, nondomestic varieties, Triticum spp.</td>
<td></td>
</tr>
</tbody>
</table>

Multiple-crop subcommittees
Grasses, other: bermudagrass, Agrostis spp.; bermudagrass, Cynodon spp.; bluegrass, Poa spp.; bluestem, Andropogon spp.; brome-grass, Bromus spp.; fescue, Festuca spp.; gamagrass, Bouteloua spp.; orchardgrass, Dactylis glomerata L.; paspalum, Paspalum spp.; timothy, Phleum pratense L.; wheatgrass, species in Agropyron, Thinopyrum, and other genera; and various grasses not otherwise listed


Miscellaneous crops: buckwheat, Fagopyrum spp.; guar, Cyamopsis tetragonoloba (L.) Taub.; guayule, Parthenium argentatum A. Gray; hop, Humulus lupulus L.; peppermint, Mentha piperita L. var. piperita; pyrethrum, Tanacetum spp.; and various nonoilseed crops in families other than Poaceae and Fabaceae not otherwise listed


Sorghum, including sudangrass, and pearl millet: sorghum, Sorghum bicolor (L.) Moench; pearl millet, Pennisetum glaucum (L.) R. Brown

Sunflower, castor, rapeseed, safflower, and other oilseeds: sunflower, Helianthus annuus L.; castor, Ricinus communis L.; rapeseed, Brassica spp.; safflower, Carthamus tinctorius L.; flax, Linum usitatissimum L.; and various oil seeds not otherwise listed.
mass selection, pedigree selection, etc.). Include the pedigree (the format for the pedigree will vary according to species, e.g., Purdy et al., Crop Sci. 8: 405–406; Bernard, et al., 1988. USDA Tech. Bull. 1746). Cite previously published registration articles and NPGS PI numbers for parents in pedigrees. Trace pedigrees back from immediate parents through all intermediates to officially released cultivars or plant introductions. Both sets of information can be searched through the USDA–ARS Genetic Resources Information Network (GRIN), http://www.ars-grin.gov/npgs/searchgrin.html.

Describe or cite selection methods and criteria applied at each generation including, for example, methods of evaluating morphological, agronomic, pest resistance, end-use quality, and biochemical traits. Depending on the context, methods should include scientific names of all organisms, rating scales, size of field plots, number of locations, number of replications evaluated, methods of determining marker genotype data, methods for determining trait values, and other relevant information. Include the name of the laboratory conducting the evaluation if it is not the author’s institution. Reporting data collected from author-operated trials as well as regional nurseries is encouraged and considered to be part of the author’s original contribution to the research.

Characteristics

Characteristics of the plant material being registered will vary according to the type of plant material (cultivar, parental line, germplasm, genetic stocks, mapping populations); the species; and the generation being registered. The characteristics used to justify the registration must be novel and unique compared to available plant materials. Manuscripts in JPR adhere to the same standard for reporting data as other CSSA journals. Claims made regarding the plant material must be supported by appropriate statistical analysis, including the use of accepted probability levels (e.g., \( P < 0.05 \)) for describing differences among entries for metric traits and comparisons with relevant checks. Claims based on data from single environments are not encouraged. Claims based on morphological, ornamental, or genetic traits must be shown to be stable and uniform. Documentation of mode of inheritance of novel traits in the form of segregation data is encouraged.

Availability

This section should include the generations of seed increase and the area of seed production or the method and limitations on asexual propagation (as applicable) for cultivars, the agency, organization, or institution that will maintain basic stocks of these plant materials, any limitation on availability of the plant materials (i.e., restricted use crop material), and the method by which to obtain this material (and, if applicable, the status of restricted use material) should be explained. For restricted-use material, state specifically the form of restriction, the way to access the material, and the termination date for the restriction, which, with the following exception, may not exceed 20 years. In keeping with the CSSA’s international mission, plant materials covered by the Standard Material Transfer Agreement (SMTA) from the International Treaty for Plant Genetic Resources for Food and Agriculture will be eligible for registration provided all other requirements for registration are met, including deposition of seed in the NCGRP. The owner is responsible for maintenance and distribution during the term of the restricted use unless different arrangements are made with NPGS. For genetic stocks, the owner is expected to distribute seed samples.

Conclusions

A sector describing the impact of the release of the plant materials is encouraged.

Citation of Genetic Material

Authors of CSSA publications must cite plant introductions, as well as registered cultivars, germplasm, parental lines, and genetic stocks when they are mentioned in the text of the introduction, methods, characteristics, or discussion sections of research papers. Such genetic materials must also be cited when they are used to develop unreleased genetic populations that are the focus of the research paper, unless the development of the population can be cited more directly. Authors are encouraged to cite the Journal of Plant Registrations if possible. Other sources for citation information include the Genetic Resource Information Network (GRIN) maintained by the USDA. Registrations published in Crop Science and the Journal of Plant Registrations are indexed on the GRIN website at http://www.ars-grin.gov/cgi-bin/npgs/html/csrlist.pl. A general search in GRIN is available at http://www.ars-grin.gov/npgs/acc/acc_queries.html.

Examples of References


Text citation: (Lewis et al., 2010)


Text citation: (USDA-ARS NGRP, 1993)

Tables and Figures

Instructions for table and figure preparation are found at https://www.crops.org/files/publications/style/chapter-05.pdf.

Tables. A pdf file with instructions for preparing tables in MSWord can be downloaded at: http://mc.manuscriptcentral.com/plantreg by clicking on the “instructions and forms” menu item.

Figures. Submit figures in high-resolution (300 dpi at desired print size), individual files (one figure per file). All panels of one figure need to be in the same single file and on the same page if possible. Check your figures in the pdf proof generated by Manuscript Central, because the figures in the pdf may be used for publication. TIFF or EPS.
files are best for resolution (don’t insert these files into a word-processing document because this will reduce resolution). Width of figures should approximate desired print size, i.e., 3 ¼ inches for a one-column figure, 7 inches for a two-column figure. Photographs and drawings for graphs and charts should be prepared with good contrast of dark and light. Give careful attention to the width of lines and size and clarity of type and symbols. Variables (e.g., \( r, x, y \)) should be italicized.

If you have any images that highlight your paper, you may submit them along with your paper in the Manuscript Central system. Please be sure to label as “image” (not “figure”). Cover images need to be at least 300 dpi at actual size (about 8 x 10 inches). Also, please be aware that even if your image is not chosen for publication as the cover, the images submitted to the *Journal of Plant Registrations* may be used in other ASA-CSSA-SSSA publications.

**Revisions**

All revisions to the manuscript during the review process will be made by the author only, and revisions will be given the same manuscript number, with an R number on the end (e.g., 2008-04-0017-CRC.R1). Each revision has the opportunity for additional rounds of review—the manuscript status “awaiting reviewer selection” is automatic and does not indicate a resubmission. It is typical for *Journal of Plant Registrations* manuscripts to undergo multiple rounds of review.

**Publication Charges and Length of Manuscript**

For manuscripts accepted for publication in the *Journal of Plant Registrations* after 1 Jan. 2013 the new charges will be as follows:

- No charge for the first 4 pages
- 5+ pages: $50 per page
- No charge for tables or figures

Because *JPR* will no longer be open access after 1 Jan. 2013, authors can designate that their papers be open access for a charge of $800 per paper.

Membership in the Crop Science Society is not a requirement for publishing in the *Journal of Plant Registrations*. For manuscripts submitted on or after 1 Jan. 2013, all rates will be the same whether the author is a member or not.

**Definitions of Registration Types**

*Cultivars* that are officially released by public or private agencies are eligible for registration provided that the new variant has demonstrated uniqueness and utility. Registered cultivars must be statistically different from common check cultivars for the trait(s) that is (are) the basis of release. Cultivars not meeting this standard will not be accepted for publication because they do not contribute utility above already available germplasm sources.

**Parental stocks** of demonstrated value for hybrid development may be registered. For fertile parental lines with male-sterile counterparts, all available restoration information for different cytoplasm should be included and the specific source of the cytoplasm must be indicated for the male-sterile counterpart. For restorer lines, all available restoration information for different cytoplasm should be included. Hybrid cultivars will not be registered.

**Germplasm** must possess a unique trait, trait combination, and/or exotic genetic background that is not currently available in existing germplasm. Germplasm does not need to be commercially viable in its current form.

Germplasm must have been officially released by the originating institution. Germplasm that will be commercialized must meet the more stringent standards of cultivar registrations. Some crops, such as grass, shrub, or forb species, designate “prebreeding” or “prevariety” populations; these will be registered as germplasm if they have identifiable useful traits or composition to warrant their registration. Under AOSCA guidelines (AOSCA, 2001), prevariety germplasms are only to be released when current seed supplies of a given species are not sufficient and rapid commercialization is necessary. Therefore, these germplasms will not be registered without strong evidence that these requirements are met. Scientific justification may include multi-environment field studies for agronomic traits, biochemical and/or genetic characterization, or others. “Source-identified” materials will not be accepted for registration in the absence of additional defining characteristics (although they can be submitted into the NPGS).

**Genetic stocks** comprise unique morphological, physiological and chemical mutants, aneuploid lines, isolines, cytoplasmic male-sterile lines. Genetic stocks are differentiated from germplasm for their use primarily in basic genetic research. Although genetic stocks must be deposited with the NPGS, the donor is expected to make distributions. The owner’s signature on the NCGRP Storage Information Form authorizes NPGS to distribute from the *JPR* sample if the owner cannot.

**Mapping populations** with high intrinsic value (those used to establish representative or landmark molecular maps and/or used to map significantly important traits) may be registered. The following information is required in addition to that for all registration manuscripts: (i) full description of the parents, including PI numbers if applicable; (ii) the full procedure used to develop the mapping population lines (e.g., doubled haploids, recombinant inbred lines); (iii) a description of the mapping population in terms of marker data generated, marker type(s) used, parental polymorphism frequencies for markers; (iv) means and ranges of trait data; and (v) relevant literature citations to published map information, including the types and number of markers mapped, average map distance between markers, range of map interval size, and quantitative or qualitative traits mapped. Genotype and trait data for each parent and line in the population must be publicly available via a plant genome
database. Citations of key papers produced in making and using the map, as well as the name and address of the individual or organization responsible for maintaining and distributing the mapping populations and parents, related information, and relevant data, must be included. As with genetic stocks, the donor is expected to make distributions. The owner’s signature on the NGCRP Storage Information Form authorizes NPGS to distribute from the JPR sample if the owner cannot. Samples of mapping populations should be deposited with the NPGS but may not be assigned a PI number. For submission of mapping populations, please contact the appropriate NPGS crop curator and Renee.White@ars.usda.gov (cc: david.ellis@ars.usda.gov) to arrange for deposition of seed samples.

Useful References


