

## **PAA Content & Organization for Variety Release Manuscripts**

[Rev 2/5/08]

'Instructions for Authors' on the Springer website

<http://www.springer.com/life+sci/plant+sciences/journal/12230?detailsPage=contentItemPage&CIPageCounter=532809>

All new potato varieties originating in the Americas should be described in AJPR. to provide a consistent source of reference. The format of variety release manuscripts is similar to that for full-length manuscripts including the requirement for peer review prior to acceptance for publication. However, variety releases also have their own unique organization which should include the following elements:

**Title Page.** Follow the instructions for a full-length manuscript. The title should include the variety name plus descriptive information about the variety.

**Abstract.** Follow the instructions for a full-length manuscript. Include a summary of essential characteristics of the variety. Include brief statements summarizing how the variety is distinct from existing potato varieties.

**Introduction.** Provide a history of the development of the proposed variety, including but not limited to:

- Originating program/institution and cooperating agencies contributing to the release.
- Clonal designation used during evaluation.
- The meaning or origin of the variety name or trademarked name.
- A clear statement of the intended use and importance of the new variety relative to industry standard varieties.
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- A clear statement of the intended use and importance of the new variety relative to industry standard varieties.
- Pedigree. Parentage should be given with female parent always listed first (left to right in text and top to bottom in the pedigree figure). The pedigree should be given through four generations, although it is not necessary to include the parentage of named and described varieties that appear in the pedigree, as long as release documents for such varieties are cited. Authors may include reasons for the choice of parents, and also may discuss ancestral contributions to characteristics unique to the variety.

**Varietal Description.** The detailed description of the variety should be written using comparisons to existing varieties most similar to the new variety or most likely to be replaced by the new variety. The authors may take into consideration the need for plant varietal protection (PVP) or plant breeders rights (PBR) and should also consider the need of certification agencies to identify the variety in field or storage. Color pictures of tuber, vine, leaf, flower, and light sprout are required components of the manuscript.

Special attention should be given to the description of those traits which best identify the variety and to those performance qualities most pertinent to the anticipated use of the variety. All information should be as precise and scientifically accurate as the characteristic permits with subjective descriptors such as “fairly” or “somewhat better” being avoided.

Complex data sets from multiple-site variety trials over years make standard statistical analyses difficult to conduct and report for new variety releases. Therefore, means of data for yield, specific gravity and other descriptors over years and locations are acceptable to report. However, statistical analyses are required for any unique or superior characteristics highlighted in the release document as distinguishing the new variety from previously released varieties. Results should show statistically significant differences between the new variety in comparisons with standard varieties currently used by industry in order to substantiate claims of superiority and/or distinctness.

This description will be a permanent record of the variety. Varietal descriptions are used in potato disciplines ranging from basic to applied research, and complete varietal descriptions will aid in decisions to adopt this technology for commercialization or research purposes. Complete descriptions should be given for the following:

#### **Botanical Descriptors.**

- Plant vine & foliage characteristics--i.e., plant type, height, growth habit, and maturity; stem, leaf and leaflet characteristics; characteristics of the inflorescence and fertility.
- Tuber characteristics--i.e., tuber skin and flesh color(s), characteristics of tuber shape, size and number per plant; eye distribution, and depth or prominence; tuber dormancy relative to most closely associated industry standard variety; light sprout characteristics.

#### **Agronomic Descriptors**

- Agronomic performance--i.e., Total and U.S. No. 1 yield (or percent U.S. No. 1 yield), specific gravity, and tuber size distribution relative to industry standard over years and locations with data on external and internal tuber defects such as hollow heart/brown center, second growth, shatter and blackspot bruise.
- Tuber Qualities--Culinary, processing, and storage attributes
- Reaction of plant & tuber to diseases and pests--i.e., resistances /susceptibilities. Ratings of standard varieties for comparison need to be included when describing disease/pest response of the new variety, thereby providing the reader with a reference. Methods used in screening and assigning disease/pest response need to be included either as a citation or succinctly in the text of the manuscript for reference by the reader.

Particular attention should be given to those diseases for which atypical or symptomless expressions are encountered, especially ring rot and Potato virus Y.

**Agronomic Production & Storage Management Practices**--i.e., recommended production and storage practices, and plant or tuber sensitivities to agricultural chemicals.

**Tuber Chemistries**--e.g., Concentrations and descriptions where applicable of glycoalkaloids, vitamins, proteins, amino acids, starch, sugar, antioxidants, and phytonutrients.

**Variety Identification:** Authors may also include a protein profile or other fingerprinting technique that can be used for variety identification. The protocol used need to be cited or described in the manuscript to allow for its reproduction. Profiles for standard varieties most similar to the newly released variety should also be included.

**Seed Availability**--Contact information.

**Plant Variety Protection**--To be applied for?

**Acknowledgments**--Please refer to instructions for a full-length manuscript.

**Literature Cited.** Please follow the instructions for a full-length manuscript. Cite all pertinent literature, including release documents of other varieties listed in the manuscript as per instructions for a full-length manuscript. An aspect of variety releases that differs from a full-length manuscript is the use of reports detailing agronomic and processing performance and disease and pest response. Useful data concerning the new variety is detailed in such reports; however, such reports are generally not submitted for formal publication and therefore would be discounted as an acceptable reference under the guidelines given in the full-length manuscript. However, due to their contribution of data useful in determining the worth of a breeding clone for release as a variety, reports of this nature can be cited in the variety release document. Citations may be a URL (if posted on the internet) with the corresponding date at which authors were able to access data at that website, i.e., verified January 11, 2008. In addition to the URL, the contact person with telephone and e-mail information should also be listed for reference if a hard copy of the report is desired, or if Internet access to reports changes with time.

All new potato varieties originating in the Americas should be described in AJPR. Cultivar release manuscripts are similar to other manuscripts and require peer review. Refer to recent past cultivar publications or Contact the Cultivar Descriptions Senior Editor for current guidelines.