

Cucurbit Genetics Cooperative Report Author Guidelines (June 2021)

Submit contributions to the CGC chair (currently Amnon Levi [Amnon.Levi@usda.gov]).

CGC reports should be related to cucurbit genetics and breeding, or topics of interest to cucurbit breeders. The CGC encourages reports of any length, from a few paragraphs to 10 single-spaced pages (please contact the CGC chair concerning publication of a longer contribution). While traditional manuscripts describing a full research study are accepted, we also welcome short reports, including things such results from consumer or grower surveys, interesting observations in the field, reports of a new disease, new or improved laboratory or field techniques, etc.

While CGC reports are not peer-reviewed, they will be reviewed by one or more assistant editors who are known experts in their field. If substantial revisions are needed, the corresponding author will be contacted. Minor revisions will be made directly by the editors without contacting the corresponding author.

Please follow the guidelines below when preparing your CGC report (see a sample submission on page 2). Pay particular attention to how references should be formatted. Do not italicize journal or book names.

Refer to the latest Cucurbit Genetics Cooperative Report regarding questions of style not mentioned.

Reports should be submitted as Microsoft WORD files with editing enabled. Use a 10 or 12 pt font, preferably Times New Roman.

Except as indicated below, **no formatting should be used in the main text**. The entire report should be in a single column (the main text will be formatted into two columns by the editor). The report should be single-spaced except as noted below. All text (including the title) should be left-justified.

Title: The title (in bold) should be a precise and concise description of the work. Avoid the use of meaningless words such as "influence of," "effects of," "results of," "studies on," "evaluation of," "factors involved in," and "tests on." Capitalize the first letter of all words except for articles such as "a" and "the," prepositions such as "of," "in," "on," "during," and "between," and conjunctions such as "and" and "with" that are not the first word. Double space between title and by-line.

By-line: Author(s) name(s) followed by middle initial and last name. Names of two or more authors at the same institution are on the same line. Names of authors in separate institutions are on different lines. A concise mailing address is on the line below the author(s) name(s). The name of the corresponding author should be followed by an asterisk (*). Email of the corresponding author is on the line below the concise address. Double space between the by-line and the Introduction.

Body of Report: CGC reports should NOT include an Abstract. If appropriate, include a brief Introduction, essential Materials & Methods, and concise Results and Discussion. If desired, an Acknowledgement(s) can be included before the Literature Cited section. DO NOT indent paragraphs. Double space between each section of the body of the report. DO NOT double space between paragraphs within sections.

Citations: Within the body of the report, cite the author or authors (for two authors, include both last names, for three or more authors use [first author name] et al.) followed by the year of publication in parentheses. A complete reference for all citations should appear in the Literature Cited section, in alphabetical order. Only references cited in the body of the report should be included in Literature Cited.

Taxonomy and Genetic Nomenclature:

Taxonomy: The first time they are mentioned, give the full scientific names of plants, disease organisms, and insects, along with their authority (and if important, the cultivar name). **Italicize** scientific names. Use common names whenever possible. Cultivar names can be preceded by the abbreviation for the word cultivar (e.g., cv. Calypso), or can be set off with single quotes (e.g., 'Calypso').

Genetic Nomenclature: Names and symbols of genes are subject to the gene nomenclature rules for the Cucurbitaceae. (Robinson et al. 1976. Genes of the Cucurbitaceae. HortScience 11:554-568; CGC Gene List Committee. 1982. Update of cucurbit gene list and nomenclature rules. Cucurbit Genetics Cooperative Report 5:62-66.) Refer to the rules of nomenclature before assigning a name and symbol to a newly described gene in a published report regardless of where it is published. If necessary, consult the CGC Gene List Committee regarding questions of gene names and symbols. Members of the Gene List Committee are listed in the latest CGC Report. **Italicize** gene names and symbols.

Tables and Figures: Tables and Figures should follow the main body of the report (within the same WORD file). Captions should be clear, concise, and complete. In general, tables should be made using the "tables" feature in WORD.

Example of what a CGC Report submission should look like:

Non-transmission of PRSV and ZYMV through Resistant *Cucurbita moschata* Genotypes

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Introduction (note: do not include an abstract!)

Surveys conducted in 2001 and 2002 (Paz-Carrasco and Wessel-Beaver, 2002) and in 2006 to 2011 (Rodrigues et al., 2012) found a high incidence of *Zucchini yellow mosaic virus* (ZYMV) and *Papaya ringspot virus* (PRSV) in cucurbits in Puerto Rico. Severe virus and virus vector outbreaks are associated with low yields and limitations to growing cucurbits.

‘Nigerian Local’ and ‘Menina’ are two well-known sources of resistance to PRSV and ZYMV in *Cucurbita moschata*. At least five loci are thought to be involved in controlling resistance to ZYMV, and the genes involve vary depending on the source of resistance (Pachner et al., 2011). ‘Nigerian Local’ carries two dominant genes for resistance (*Zym-0* and *Zym-4*), while resistance in ‘Menina’ is conferred by *Zym-1*.

Materials and Methods

Cotyledons of six-days-old plants of resistant genotypes ‘Menina’ and ‘Nigerian Local’ were mechanically inoculated with either PRSV or ZYMV. Eighteen days post-inoculation, tissue from these plants (three plants each of ‘Menina’ inoculated with PRSV, ‘Menina’ inoculated with ZYMV, ‘Nigerian Local’ inoculated with PRSV, and ‘Nigerian Local’ inoculated with ZYMV) was ...

Results and Discussion

No virus symptoms were observed on the inoculum source plants (‘Menina’ and ‘Nigerian Local’ inoculated with each virus) nor the test plants (‘Waltham’ and ‘Moschata 166’). Source plants had weakly positive ELISA readings in some cases. ‘Menina’ source plants inoculated with PRSV or ZYMV had average ELISA readings of 0.374 and 0.671, respectively, on tissue sampled from the fourth leaf. ‘Nigerian Local’ source plants inoculated with PRSV or ZYMV had average ELISA readings of 0.462 and 0.360, respectively. Susceptible genotypes ‘Waltham’ and ‘Moschata 166’ had negative ELISA readings when inoculated with fresh inoculum from resistant genotypes ‘Menina’ and ‘Nigerian Local’ that had been previously inoculated with PRSV (Table 1).

In this experiment resistant genotypes ‘Menina’ and ‘Nigerian Local’ did not have the capacity to transmit PRSV or ZYMV to susceptible genotypes ‘Waltham’ and ‘Moschata 166’. ‘Menina’ and ‘Nigerian Local’, when mechanically inoculated with PRSV and ZYMV, are not suitable hosts for replication of these two viruses...

Acknowledgements

This research was supported by

Literature Cited

- McPhail-Medina, R., L. Wessel-Beaver, and J.C.V. Rodrigues, J.C.V. 2012. Inheritance of resistance to Papaya ringspot virus in tropical pumpkin is controlled by at least two genes. *In*: (Sari, Solmaz and Aras, eds.) Proceedings of the Xth EUCARPIA meeting on genetics and breeding of Cucurbitaceae, pp. 697-701.
- Pachner, M., H.S. Paris, and T. Lelley. 2011. Genes for resistance to zucchini yellow mosaic in tropical pumpkin. *Journal of Heredity*. 102(3):330–335. <http://doi.org/10.1093/jhered/esr006>.
- Paz-Carrasco, L. and L. Wessel-Beaver. 2002. Survey of cucurbit viruses in Puerto Rico. D. N. Maynard (ed.), *Cucurbitaceae 2002*: 256-264. American Society for Horticultural Science Press. Alexandria, VA.
- Rodrigues, J.C.V., I. Quintero-Lopez and L. Wessel-Beaver. 2012. Potyviridae as a major challenge to growing cucurbits in Puerto Rico. *In*: (Sari, Solmaz and Aras, eds.) Proceedings of the Xth EUCARPIA meeting on genetics and breeding of Cucurbitaceae, pp. 786-790.

Table 1. Mean *Papaya ringspot virus* (PRSV) ELISA readings (A_{405nm}) of susceptible genotypes ‘Waltham’ and ‘Moschata 166’ inoculated with sap from plants of ‘Menina’ and ‘Nigerian Local’ inoculated with PRSV

Inoculum Source	Tested Genotype	PRSV ELISA Reading
Menina	Waltham	0.310 a
	Moschata 166	0.275 a
Nigerian Local	Waltham	0.339 a

	Moschata 166	0.259 a
Mean		0.296
Genotype F-test		0.0723
Source of inoculum F-test		0.8182
