2022 Rule Proposal #5

Purpose of Proposal: To add the common name citron-melon in Volumes 1, 3 and 4 for *Citrullus amarus*.

Present Rule and Proposed Rule: (changes indicated in red text)

Volume 1. Principles and Procedures

Table 2A. Weights for working samples	Table 2A.	Weights	for working	samples.
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Pure Seed Unit #	Chaffy Seed ^a	Kind of seed	Minimum weight for purity analysis ^b	Minimum weight for noxious- weed seed or bulk examination	Approximate number of seeds per gram ^c	Approximate number of seeds per ounce ^d	
			Grams	Grams	Number	Number	
1		Citrullus amarus Schrad. citron, citron-melon	200 500		11	310	
		<i>Citrullus lanatus</i> (Thunb.) Matsum. & Nakai var. <i>caffer</i> (Schrad.) Mansf. <u>citron, citron-melon</u>	see Citrullus amarus				
		<i>Citrullus lanatus</i> (Thunb.) Matsum. & Nakai var. <i>citroides</i> (L. H. Bailey) Mansf. citron <u>, citron-melon</u>	see Citrullus amarus				

Table 6A. Methods of testing for laboratory germination.

Kind of Seed	Substrata ^a	Tempera- ture (∘C)	First count (days)	Final count (days)	Specific requirements and notes	Dormant seed ^f
Citrullus amarus citron, <u>citron-melon</u>	Т, В	20-30	7	14	Soak seeds 6 hr	Test at 30°C
<i>Citrullus lanatus</i> var. <i>caffer</i> citron, <u>citron-melon</u>	see Citrullus amarus					
Citrullus lanatus var. citroides citron, citron-melon	see Citrullus amarus					

Volume 3. Uniform Classification of Weed and Crop Seeds (if adopted, changes will be made to all sections of Vol. 3)

Nomen	Scientific name	Common name	Family	Spp class		-					
#				CIASS	Α	F	Н	R	S	Т	۷
468434	<i>Citrullus amarus</i> Schrad.	citron; <u>citron-melon</u>	Cucurbitaceae	V	С	С	С	С	С	С	С

Volume 4. Seedling Evaluation

CUCURBITACEAE, CUCURBIT FAMILY

Citrullus amarus, citron<u>, citron-melon</u> *Citrullus lanatus* subsp. *lanatus*, watermelon *Cucumis melo*, muskmelon or cantaloupe *Cucumis sativus*, cucumber *Cucurbita* spp., pumpkin and squash

Harmonization and Impact Statement:

The Federal Seed Act defines *Citrullus lanatus* (Thunb.) Matsum. & Nakai var. *citroides* (L.H. Bailey) Mansf., which according to GRIN is a synonym of *Citrullus amarus* Schrad., as a vegetable kind with the common name citron melon (a member of the Cucurbitaceae or cucurbit family). This proposal would align the common name for *Citrullus amarus* with the Federal Seed Act (2020).

The Canadian Methods and Procedures lists citron as the common names for *Citrullus lanatus var. citroides* (for grade table XVII for various species in Cucurbitaceae or the cucurbit family).

Both citron and citron-melon are used in literature and regulation for the species *Citrullus amarus* and its synonyms; therefore, both names should appear in the AOSA Rules.

There is some confusion over the common name 'citron' as it also applies to *Citrus medica* L. (Citrus Citron Group) a member of the Rutaceae or citrus family.

Supporting Evidence:

Citrullus amarus (citron or citron-melon) is a prostrate summer annual vine producing semispherical fruits resembling small watermelons that is native to southern Africa (Deane, 2021; DiTomaso & Healy, 2007; USDA-GRIN 2021). The species is grown commercially for the fruit rind that is typically eaten only after cooking, while the white flesh is usually considered inedible. The rind of citron-melon is used in preserves or is candied and used in baked goods (Deane, 2021; DiTomaso & Healy, 2007; Everett, 1981). When found in commercial watermelon fields, citronmelon is an undesirable field contaminant because it can hybridize with watermelon resulting in production of inferior fruit (DiTomaso & Healy, 2007).

Synonyms for *Citrullus amarus* Schrad. (current accepted scientific name according to USDA-GRIN, 2021) include *Citrullus caffer* Schrad.; *Citrullus lanatus* (Thunb.) Matsum. & Nakai var. *citroides* (L. H. Bailey) Mansf.; *Citrullus lanatus* (Thunb.) Matsum. & Nakai var. *caffer* (Schrad.) Mansf.; and *Citrullus vulgaris* Schrad. var. *citroides* L. H. Bailey.

Citrus medica (citron) is a woody species and close relative of the orange (*Citrus ×aurantium* L. var. *sinensis* L.) and is grown for its fragrant fruits with thick rinds, which are used in jams and marmalades and are candied and used in fruit cakes (Everett, 1981; van Wyk, 2005). The fruit of *C. medica* looks like a large warty lemon but has a thick rind that represents up to 70% of the fruit weight (van Wyk, 2005). Fruit of this species is used in Corsica to make the liqueur called ćedratine (van Wyk, 2005).

According to USDA-GRIN (2021) and other sources, the common name citron is most appropriately applied to *Citrus medica* L. (Citrus Citron Group) (Table 1). Also, according to USDA-GRIN (2021) and other sources the common name citron-melon, as well as fodder melon, preserving melon, stock melon, and tsamma melon are common names applied to *Citrullus amarus* Schrad. (Table1).

Table 1. Common names for Citrus medica L. and Citrullus amarus Schrad. (and synonyms).

Scientific Name	Common Name	Source				
Citrus medica L. (Citrus Citron Group)	citron	USDA-GRIN (2021)				
Citrus medica	citron	Hortus Third (Bailey & Bailey, 1976)				
Citrus medica	citron	The New Royal Horticultura Society Dictionary of Gardening (Huxley et al., 1992)				
Citrus medica	citron	Food Plants of the World (van Wyk, 2005)				
Citrus medica	citron	World Economic Plants (Wiersema & León, 1999)				
Citrullus amarus Schrad.	citron-melon fodder melon preserving melon stock melon tsamma melon	USDA-GRIN (2021)				
<i>Citrullus lanatus</i> (Thunb.) Matsum. & Nakai var. <i>citroides</i> (L. H. Bailey) Mansf.	citron preserving melon	Hortus Third (Bailey & Bailey, 1976)				
Citrullus lanatus var. citroides	citron preserving melon	The New Royal Horticultural Society Dictionary of Gardening (Huxley et al., 1992)				
Citrullus lanatus var. citroides	citron-melon	Federal Seed Act (2020)				
Citrullus lanatus var. citroides	citron	Canadian Methods & Procedures for Seed Testing (2016)				
Citrullus lanatus var. citroides	citron-melon preserving-melon stock-melon	World Economic Plants (Wiersema & León, 1999).				
Citrullus vulgaris var. citroides	citron preserving melon citron melon	Bailey (1930)				

References

Bailey, L. H. 1930. Three discussions in Cucurbitaceae. Gentes Herbarum 2:186.

- Bailey, L. H., & E. A. Bailey. 1976. Hortus Third: A Concise Dictionary of Plants Cultivated in the United States and Canada. Macmillan Publishing Co., Inc., New York, NY.
- Canadian Methods and Procedures for Testing Seed (M&P). 2016 Edition. Canadian Food Inspection Agency.

Deane, G. Citron Melon, Tsamma. <u>http://www.eattheweeds.com/citron-melons-abandoned-preserves-2/</u> (accessed 04 October 2021).

DiTomaso, J. M. and E.A. Healy. 2007. Weeds of California and Oher Western States. Vol. 1: Aizoaceae-Fabaceae. Publication 3488. University of California Agriculture and Natural Resources.

Everett, T. H. 1981. The New York Botanical Garden Illustrated Encyclopedia of Horticulture. Vol. 3. Garland Publishing, Inc. New York, NY.

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Huxley, A., M. Griffiths & M. Levy (eds.). 1992. The New Royal Horticultural Society Dictionary of Gardening. Vol. 1. The Macmillan Press Limited. London, England.

USDA-GRIN. 2021. GRIN-Global U.S. National Plant Germplasm System. <u>https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch?t=pnlspecies</u>

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