

2022 Rule Proposal #9

Purpose of Proposal: To add *Bromus riparius X B. inermis*, hybrid brome grass, to Volume 1, Table 6A of the AOSA Rules for Testing Seeds.

Present Rule: None

Proposed Rule: Volume 1. Principles and Procedures Table 6A. Methods of Testing for Laboratory Germination

Kind of Seed	Substrata ^a	Temperature (°C)	First Count (Days)	Final Count (Days)	Specific Requirements and Notes	Fresh and Dormant Seed
<i>Bromus riparius X B. inermis</i> hybrid brome grass	TB, P	15-25°C	7	14	Light optional	

Harmonization statement:

Bromus riparius X B. inermis, hybrid brome grass, is not currently listed in the Canadian Methods and Procedures for Testing Seeds, or the International Rules for Seed Testing. This species is sold as a new forage crop in Canada and the United States. Adding a germination method will ensure standard testing methods for its fair seed trade and testing uniformity among laboratories.

Supporting Evidence: Hybrid brome grass is generated by crossing meadow brome grass (*Bromus riparius*) and smooth brome grass (*B. inermis*), which is a slightly creeping, winter hardy, long-lived perennial, dual purpose forage grass for both hay and pasture systems. Two varieties, Knowles and Success, were released in 2000 (Coulman, 2004) and 2003 (Coulman, 2006), and one variety 'BigFoot' was released from USDA as a new forage crop. Since the superior quality of hybrid brome grass in fast growth and high yield than their parental species (Coulman, 2004 and 2006), it was widely used as forage in Canada and the USA.

The results of the in-house and inter-laboratory studies showed that germination of the hybrid brome grass has no requirement for dormancy breaking measures and 15-25°C with the final count at 14 days was an optimum method with accurate, consistent, and satisfactory performance comparing to other temperatures. The details of in-house and inter-laboratory studies details are provided in the support document.

References:

1. Coulman, B. 2004. Le brome hybride Knowles. Can. J. Plant Sci. 84: 815–817
2. Coulman, B. 2006. Success hybrid brome grass. Can. J. Plant Sci. 86: 745–747
3. Association of Official Seed Analysts (AOSA), 2019. AOSA Rules for Testing Seeds.

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