

ARS Barley Crop Germplasm Committee meeting Notes - 1/10/24

Note taker: Thomas Baldwin

Discussion on the "Crop vulnerability statement"

Sent to Ana and Jerry Frankawik, Christiana Cowgar

All of the reviews commented, started on discussion of comments

1. Too long. Is that an issue? **Brian** will work to trim it
2. End of the document summary, perhaps a second document (1 or 2 pages) to explain to decision makers
3. List of committee members was checked
 - a. It was decided that Ashley as ex officio
4. Michael Mckay (Highland) - could improve statements on Feed.
5. Discussion on pet nutrition Tony Rosing for Anchor ingredients.
 - a. Pet nutrition was felt to be the best term
6. Genetic vulnerability from genetic diversity in breeding programs.
 - a. Austin did extensive pedigree work, what can be presented A. what should be included B. what can't be included bc of PVP.
 - b. Something could be gleaned from historic data, published data **Brian**
 - c. E.g. African UG99 screening and finding resistance in limited lines
 - d. Draft Nicolas to draft a statement on Eastern importance of barley. But also: Cornell, Penn State, Virginia Tech, UW, OSU (Stockinger), Kentucky, Alaska, and Utah, Umass Amherst, University of Maryland(?)
 - e. Oklahoma is listed as Western
7. Advances in genetics and genomics
 - a. Update to third version (preferred)
 - b. Update resources
8. Diseases of Highest Impact on Barley in the United States
 - a. No comments. Look for grammatical errors
9. Abiotic diseases
 - a. Thanks to Mali for
 - b. Changed 1.4 to 0.14 billion in losses (need citation). Risk management crop insurance database was the citation
 - c. **Sidebar:** Kevin has points on winter barley making progress in Northern states. Might go into the regional section
 - d. Revisit slide deck
10. Ashley will re-send the slides [@ashley@ambainc.org](mailto:ashley@ambainc.org)
11. Flagged: NSGC germplasm please contact Scott.McNeal@usda.gov
 - a. Discussion about Russian lines
12. A possible target journal is Genetic Resources and Crop or GRACE (hefty documents are accepted and journal is open access) (Recommended by Gayle Volk).
13. Gayle Volk is looking for NPGS "success stories" in a template document
14. Briget Meints is a possible lead author on the publication.

15. Finished documents for ARS can go to Greg Kinard. Must make sure the journal will be ok with a pdf version being put online ahead of publication in GRACE.
16. Suggested to wait before publishing on GRACE.
17. Do studies exist on the decline of barley acreage?
 - a. Shi study on predictive models on climate change. Does not have observed data.
18. Chris Richards, SWAT analysis to
19. Jamie Sherman (drought stress)
20. Kevin Smith (Winter Hardiness)
21. Page 30 Future perspective, but not strong enough of a statement
 - a. Ashley "Not enough emphasis on the 'So what?' statement
 - b. NSGC section as an appendix, add the future perspective to a longer - 1 page - So what? Statement
 - c. Chris Richards - There were points brought up in a document Brian wrote with good points that should be included
22. When should this be revisited?
 - a. Brian suggested 5 year intervals.
 - b. Peter Bretting "First in every CGC meeting, review the current crop vulnerability statement, after 5 years there is much less work that needs to be done"
 - c. Ashley will put on the calendar an update annually, and major revisit every 5 years.
 - d. Chris Richards agreed to any format changes necessary for GRACE

23. Barley Nurseries

- a. Ashley: the nurseries are not connected
- b. What nurseries exist (there is no list)? What nurseries don't exist, but should
- c. Ashley: The members should draft a letter in support of why the nurseries are important.
- d. No one is coordinating across all of the barley nurseries
- e. Brian, send a note to barley workers to send data and reports to a centralized spot.
- f. Action plan:
 - i. Create a list in grain genes of nurseries
 1. E.g. Who runs the winter barley trails?
 - ii. Create a project in T3 for barley nurseries
 - iii. Write a letter on how important these nurseries are
 - iv. Gary: "Genomes to fields" large GxE experiment
 - v. Peter: This committee could develop standard descriptors for market class. This is advantageous because the PI lines have all of the information in GRIN. Instead of breeding line numbers.
 - vi. ICARDA trait list, but they are . The committee should say which form should be used.
 - vii. Unify screening, e.g. disease on a % or incident, flowering at 50% heading? Ect. issues and problems.

- viii. Standardizing data collection.. This might be an issue to address after the CVS is finished
- ix. Create an AMBA certificate course for nursery management.
- x. How do we keep good, young scientists in barley?
 - 1. Grad student lightning talks
 - 2. Barley Cap or Tcap? NIFA. Might be time to resubmit it.
 - 3. Mutually supported Grad Student Salaries.
 - 4. Discussion on how increasing grad. Student salaries are an issue from a funding perspective

24. Discussion on committee

- a. Bridget Meints was nominated by Thomas Baldwin as Committee Chair
- b. The nomination was seconded by Brian Steffenson
- c. Vote for Bridget was unanimous
- d. Thomas was nominated by Brian Steffenson as Vice Committee Chair
- e. The nomination was seconded by Mali
- f. Vote for Thomas was unanimous
- g. Ashley is going to draft up the bylaws
 - i. Scott emailed the bylaws

25. Should AMBA consider a climate smart commodity grant call.

- a. National Barley Growers association was not onboard
- b. There might be a better climate now for this type of gran, germplasm and germplasm transitions

26. Bridget: Identifying barley programs that are retiring and transitioning

Zoom Comments:

Gayle.Volk 12:17 PM

If you are screening NPGS accessions, please provide evaluation data back to NSGC so they can update GRIN.

Peter.Bretting 12:53 PM

Does the committee have bylaws that would specify these details?

Thomas Baldwin 12:53 PM

Maybe

chris.richards 12:56 PM

Ashley your organizational skills have been invaluable in the CVS refresh. Thanks you.

Ashley McFarland 1:00 PM

Thanks everyone! It has been a great learning experience!

Gayle.Volk to Everyone 1:01 PM

Great meeting! Thanks for including me. Signing off now...

Peter.Bretting to Everyone 1:01 PM

Thanks everyone, I need to switch to another meeting. Best for 2024!

chris.richards 1:03 PM

Thanks all. Very informative and productive.