Dear eastern soft wheat breeders,

I would like to share with you our quality testing plan of breeding lines and quality testing scheme along with wheat grain sample submission information.

**We request you to classify and submit your breeding lines into three groups, “preliminary”, “intermediate” and “advanced” considering their breeding stages and quality traits of your interest. Breeding lines of each group will be subjected to the tests summarized in Table I.**

Table I. Quality Testing Plan of Soft Wheat Breeding Lines by the SWQL

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Nursery Classification | Test Weight | Grain Protein | SKCS Kernel Hardness | Quad. Milling\* | Flour Protein | Carbonate SRC | Sucrose SRC | Lactic SRC | Cookie Baking\*\* |
| Preliminary | x | x | x | x |  |  |  |  |  |
| Intermediate | x | x | x | x | x | x |  | x |  |
| Advanced | x | x | x | x | x | x |  | x | x |

\*Quad milling test yields ‘flour yield’ and softness equivalent’.

\*\*Cookie baking test yields ‘cookie diameter’ and ‘top grade score’.

My suggestions for grouping your breeding lines are as follows.

1. If grain characteristics (test weight, grain protein and kernel hardness) and milling quality (flour yield, softness equivalent) are sufficient for screening, categorize them as “Preliminary”. There will be no SRC test for this group.
2. Categorize the breeding lines as “Intermediate”, if the SRC tests are needed in addition to grain characteristics and milling quality. There will be no cookie baking for this group.
3. “Advanced” group will be subjected to the full quality tests.

For the Intermediate and Advanced groups, straight grade flour will be obtained from milling and used for subsequent flour testing. **You can help us to reduce our work load by minimizing the number of “Advanced” and “Intermediate” group lines**.

In addition to the quality testing of wheat breeding lines, **we are willing to collaborate with you for the research projects involving end-use quality evaluation**. For the quality testing of research project samples, I would like to learn about the project in advance, so we can best accommodate your needs. If you plan to submit research project samples to the SWQL for quality testing, I would like to have an opportunity to discuss with you the scope of the work, our capacity for performing the quality testing and timeline. I look forward to collaborating in quality evaluation of wheat breeding lines and research projects of common interests.

The guideline for submitting your requests, timeline and sample shipping instruction for end-use quality evaluation of breeding lines and research project samples are summarized on the next page. Thank you.

Sincerely,

Byung-Kee Baik, Ph.D.

Research Leader

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**Guideline for submitting the requests of end-use quality evaluation of breeding lines to the SWQL**

The amounts of grain sample needed for conducting the quality evaluation test are as follows.

1. Preliminary group – Require 150 grams per sample
2. Intermediate group – Require 200 grams per sample
3. Advanced group – Require 400 grams per sample.

We would like to cap the number of samples at ***400 for Preliminary group, 150 for Intermediate group and 100 for Advanced group.***  An Advanced group sample requires about twice the work of a Preliminary group sample. Therefore, we will count each Advanced group sample as two Preliminary samples in the total allowed per program. Please contact Byung-Kee Baik (byungkee.baik@ usda.gov) in advance if you need to exceed the sample number limits. We will try to find the best way to accommodate them.

**Timeline for Quality Testing of Wheat Breeding Lines by the SWQL**

October 10th: Deadline for receipt of samples to be processed before Friday, December 12th Samples received after this date will be processed on a first-come-first-serve basis between the first of the year and May 31

**Sample Shipping Instructions**

1. The best shipping materials are heavy sample envelopes. Stapled, thin envelopes are often the poorest sample packaging.
2. Consecutive numbering of samples with an electronic entry-list e-mailed at time of shipping or before is required. This list should be in an Excel Format.
3. Organizing your samples inside the packaging and clear labeling will speed the processing for your samples.
4. Shipping Address:

Taehyun Ji

USDA-SWQL

1680 Madison Ave.

Wooster, OH 44691

Phone: 330-641-3423