

# **2011 National Tall Fescue Referee**

**Compare the Current AOSA Purity**

**Method with a Uniform**

**Blowing Procedure for Tall Fescue**

# Background

- Any time you mechanize a seed testing method you reduce variability due to human errors.
- Hypothesis: uniform blowing procedure increases consistency in purity test results among labs compared to manual testing.
- Four years of research studies, two referees, and various validation studies.
- Still more questions .

# Background

- A working group including seed industry members, seed control officials, and labs met in August 2010 to discuss the idea of using uniform blowing procedure and identified critical factors to verify its usefulness.
- They suggested a survey and a national referee.
- Anita Hall conducted a survey and found those who are in favor, not in favor, and undecided as indicated in her published report in AOSA Newsletter.

# Background

- Mike Stahr, Iowa State University, will lead the national referee project.
- A detailed protocol will be sent to participating labs. We encourage labs who have questions to participate.
- Participants will be asked to complete the referee and return the results to Mike.
- Data will be analyzed.
- The results will be presented at the AOSA/ SCST meeting in June 2012.

# Objective

- Compare the uniformity and timeliness of separating inert matter from tall fescue samples representing:
  - different varieties,
    - seed sizes,
      - production regions, and
        - cleaning levels
          - using
            - a) the current AOSA method,
            - b) a uniform blowing procedure (UBP), and
            - c) a modified UBP where both the light and heavy fractions are examined.

## Questions to be answered by the study

- Would the UBP produce comparable results to the current AOSA method?
- Would the UBP produce consistent results among labs as the current method?
- Would the UBP save time compared to the current method?
- Does the UBP have any advantage(s) over the current AOSA method?

# **1. The AOSA Method**

Participating Labs will be asked to follow the current AOSA procedures

## 2. Uniform Blowing Procedure (UBP)

- Procedures similar to those used for KBG described in [sec 4.1 AOSA Rules Vol. 2](#) will be used.
- Tall fescue master calibration samples will be used to calibrate the blowers of participating labs, determine the optimum blowing points and the corresponding air velocity values.
- The EAV will be used to determine the light inert matter in each TF referee sample.
- Heavy inert matter and crop & weed seed separation will follow regular procedure.



### 3. Modified Uniform Blowing Procedure

- The UBP will be conducted, followed by:
- Searching the heavy fraction (after blowing) for empty seeds and placing them in the inert matter fraction.
- Searching the light fraction (blowings) for pure seeds (seeds with  $1/3$  caryopsis or larger) and placing them in the heavy fraction.

**Results of the 3 methods will be compared for  
consistency, efficiency, and simplicity**