Zone 5 Southern 2016 Bahiagrass Referee Proposal

Background

Pensacola and Argentine Bahiagrass (Paspalum notatum Flugge) are forage grasses commonly grown in the Southeastern U.S. Thick outer seed coats that cause difficulty determining endosperm presence, high occurrence of ergotized seed and subsequent high percentages of inert matter present unique seed testing concerns when conducting purity analysis on these species. Recent coating or encrusting of Bahiagrass has only added to testing challenges and lack of uniformity between labs. The occurrence of a species of Paspalum (Brunswickgrass; Paspalum nicorae) which is undesirable as forage to cattle and commonly misidentified in Southeastern fields has also created concern in the Seed Industry and the need for uniform identification of this objectionable weed species.

Proposal

Addressing the concerns outlined in the Background section it is proposed by the Zone 5 Southern referee committee to initiate a referee consisting of four samples of Bahiagrass, two Pensacola and two Argentine (one coated and one raw for each), for Purity and Germination testing by participating seed laboratories. One of these four will contain Brunswickgrass Results will be compiled and presented at the joint AOSA/SCST/ISTA convention in Denver, June 2017.

Procedure

Each participating lab will be sent four Bahiagrass samples for Purity and Germination testing. There will be two 25g. coated samples and two 10g. raw samples one each Pensacola and Argentine. The AOSA Rules for Testing Seeds Volume 1 section 6.8 b. special procedures for Argentine instruct to remove the enclosing structures (glumes, lemma & palea) commonly known as a hand peel to expose caryopsis for germination testing (chemical scarification can also be used if that is your normal method). The coated Bahiagrass samples will be de-coated for germination and de-coated prior to purity testing to determine coating percentage as a portion of the Inert matter. Included in the Zone 5 referee will be seeds of Brunswickgrass (Paspalum nicorae Parodi) a common weed frequently misidentified as Brownseed Paspalum (Paspalum plicatulum Michx.) that is undesirable to cattle and has become prevalent and problematic in Bahiagrass fields in the Southeast. The intent of including Brunswickgrass in this referee is to familiarize analysts with this objectionable weed species and to create uniform occurrence reporting as number per pound on all Bahiagrass samples tested from this point forward.

In working the coated samples, please see the following edited statement from Deborah Myers:

Under the AOSA Rules, any coated grass seed must be decoated for the purity analysis; therefore, you must remove empty florets and diseased (ergotized) seed units if the ergot is protruding (visible) following all the standard purity rules (3.2 through 3.5 and 3.8a, b, c, and e).  If the ergot is entirely enclosed within the seed unit (not visible) it remains with the pure seed.  Also, if decoated you do not apply the uniform blowing method (Pensacola bahiagrass UBP has been reinstated – but may not be used for coated/decoated seed – see PSU23).  As for germination testing, all grass seeds must be decoated before planting and only decoated pure seed are planted.  This is true for samples that have undergone a purity analysis and for samples that are for germination only testing (i.e., even if a purity analysis is not conducted see 6.8.l.(1)(b)).  This concept is contrary to the Federal Seed Act, in which you must plant seed in the condition that it is received (coated seed units are planted – including grasses).  This is why on the report of analysis you are required by sec.15.r. to use the following statement: “Germination results based on pure seed units de-coated prior to germination testing.”