February 1, 2005

MEMORANDUM

To: All Potential Soybean Seed Providers in Montana

From: Kenneth D. Kephart, Superintendent/Research Agronomist
Associate Professor of Agronomy

Subject: 2005 Irrigated Soybean Cultivar Performance Test

The Southern Agricultural Research Center (SARC) is one of seven research centers in the Montana Agricultural Experiment Station (MAES) system of Montana State University-Bozeman. Located in an irrigation district of the Yellowstone Valley east of Billings, Montana, SARC conducts research programs that serve an agriculture more diverse than most of the remainder of the state. This memorandum is an invitation to participate in the SARC soybean cultivar testing program for the 2005 production year.

For 2005, the SARC Variety Testing Program will again be offering a soybean cultivar field performance test for grain production. The test will be conducted at one location under irrigation on the research center using conventional herbicides. SARC is not offering a separate test for Roundup Ready™ soybean cultivars at this time. Details for submitting cultivars are as follows:

Entries: All commercial conventional and transgenic soybean cultivars offered or likely to be offered for sale in south central Montana will be accepted for performance testing on a fee basis. Experimental lines pending release for commercial sale also will be accepted as space allows. All cultivars must be entered by using the attached 2-sided application form. Soybean cultivars ranging from maturity group 00 to MG II will be accepted. Research conducted the past three years at SARC suggests late MG 0 types represent full season grain types at this location during most years. Please indicate priority by order of listing. Entries will be accepted on a first come, first served basis, however, the right is reserved to limit the number of entries from each entrant if the number of entries exceed available facilities. Transgenic or genetically modified cultivars must be identified, and licensed for both domestic and export sales. Montana State University-Bozeman and the Montana Agricultural Experiment Station shall not be held liable for soybean cultivars submitted for testing and not properly identified by the entrant.

Fee & Remittance: The fee schedule for 2005 remains $150.00 US for each soybean cultivar tested. Remittance shall accompany the entry form. Please make all remittances payable to “SARC Variety Testing Program”.

Methods: A randomized complete block (RCB) design with four replications or a balanced lattice design with three replications will be used, depending on the total number of entries submitted. Seed for each row within each plot will be electronically counted to insure that each entry establishes from a uniform population. Plots will be 7 rows wide and 25 feet long. Row spacing will be 6 inches. Anticipated planting date is May 10, 2005. Conventional preplant broad spectrum broadleaf and grass herbicides will be applied and incorporated for weed control in all entries. Post emergence application of herbicides and hand weeding will be implemented as needed. 11-52-0 fertilizer will be preplant applied at
100 pounds per acre and incorporated to ensure adequate soil phosphorus levels. RhizoFlo™ granular soybean inoculum will be applied in the seed furrow at the rate of 6.5 pounds of product per acre.

All cultivars will be evaluated for establishment, flowering date, lodging, maturity date, grain yield, test weight and grain moisture content. Data on additional field characteristics (e.g. lowest pod, canopy height, vine length, shattering, etc.) may be collected as time and personnel resources allow. Replicated subsamples will be submitted to an independent laboratory for NIR determination of percent grain protein and grain oil content. All rows will be trimmed to 20 feet prior to harvest, and harvested with a research plot combine. Reported grain yields (bushels/acre) will be adjusted to 13.0 percent grain moisture content. Related climate data (e.g. GDD50, precipitation, etc.) and management information also will be summarized.

Seed Required: Recent studies at SARC indicate maximum soybean yields under irrigation are achieved with an established population of 200,000 to 220,000 plants per acre. Each plot will be planted with 442 seeds. To ensure smooth operation of the seed counter, please submit a 750 gram (~1.5 pounds) sample of clean seed for each entry. Any remnant seed will be stored as a reference sample for the duration of the 2005 cropping season. Upon publication of the results, all remnant seed will be destroyed. Prior arrangement may be made to return remnant seed to the entrant. Treated seed must be accompanied with the appropriate material safety data sheet (MSDS) for each active ingredient.

Reporting Results: Tabularized test results of yield and field data will be provided to all entrants not more than 45 days after final harvest. Final results will be published in the Annual Progress Report of the Southern Agricultural Research Center, miscellaneous popular reports, out-reach bulletins, extension presentations, and on the SARC web site (http://www.sarc.montana.edu/). All test results belong to Montana State University-Bozeman and may be distributed in additional publications and through other media as to provide the greatest benefit to the public.

Disposal of Grain: All grain harvested from the soybean cultivars submitted for testing will be disposed of through commercial grain channels. Plot samples will be bulked and mixed together prior to disposal.

MTA’s: All Material Transfer Agreements require review and approval by the Vice President for Research at Montana State University-Bozeman. Please provide adequate lead time if your application involves a MTA for submission of entries.

Closing Date: Signed applications must be postmarked no later than March 18, 2005. Unsigned applications will not be accepted. Mail completed application form and seed to:

Ken Kephart  
Southern Ag. Research Center  
748 Railroad Highway  
Huntley, MT 59037-9099

Seed must be received by April 1, 2005. Ship all seed prepaid to the above address.

If you are not responsible for submission of materials into public performance tests, please pass this letter and application form onto the appropriate person in your company. With sufficient interest and participation in the 2005 soybean cultivar test, this program will be continued. Please feel free to contact me if you have any questions regarding this matter.
Corresponding contact and address.

Submitted by: 
Company: 
Address: 

City/State/Zip Code: 
Phone: 
FAX: 
Email: 

Federal Employer ID Number: (Company FEIN required to process remittance, not for public distribution)

For publication as contact information (if different from above).

Contact: 
Company: 
Address: 

City/State/Zip Code: 
Phone: 
FAX: 
Email: 

Performance Testing Policy Agreement

Permission is hereby given to the personnel of the MAES Southern Agricultural Research Center, Montana State University-Bozeman, to test soybean cultivars designated on the second page of this entry form in the manner indicated by the test announcement. I understand that Montana State University-Bozeman seeks to protect the genetics and intellectual property rights of the entrants and that no soybean seed submitted for testing will be used for breeding, selection, genetic engineering or other related purposes. I certify that seed submitted for testing is a true sample of the seed being offered for sale.

I understand all results from the SARC Variety Testing Program belong to Montana State University-Bozeman and shall be controlled by the University so as to produce the greatest benefit to the public. Performance data may be used in the following way: 1) Tables may be reproduced in their entirety provided the source is referenced and data are not manipulated or reinterpreted; 2) Advertising statements by an individual company about the performance of its submitted entries may be made as long as they are accurate statements about the data published with no reference to other company’s names or cultivars.

Signed  
Title  
Date  

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<th>Brand/Cultivar Identification</th>
<th>GMO</th>
<th>Relative Maturity</th>
<th>Growth Habit</th>
<th>Flower Color</th>
<th>Hilum Color</th>
<th>Pod Color</th>
<th>Pubescence Color</th>
<th>Herbage Resistance</th>
<th>Phytophthora Root Rot Resistance</th>
<th>Soybean Cyst Nematode Resistance</th>
<th>Other Unique Traits/Information</th>
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GMO: Indicate yes or no if the soybean cultivar is transgenic or genetically modified.
Relative Maturity: Indicate maturity group (00, 0, 1, 2) and relative position within group (e.g. 00.5, 1.3, etc)
Hilum Color: "BL" = Black, "BR" = Brown, "BF" = Buff, "Y" = Yellow, "G" = Gray, "IB" = Imperfect Black.
Herbicide Resistance RR: "RR" = Glyphosate Resistance (Roundup Ready). Indicate yes or no if soybean possesses this trait.
Herbicide Resistance STS: "STS" = Improved Sulfonylurea Tolerance. Indicate yes or no if soybean possesses this trait.
Phytophthora Root Rot Race Resistance: Indicate major gene (e.g. Rps1a, Rps1c, Rps1k, etc.) conferring resistance if known.
Phytophthora Root Rot Tolerance: Score tolerance from 1 to 9, "1" = Excellent, "9" = Poor.
Soybean Cyst Nematode Race Resistance: Indicate all races that cultivar is resistant to (e.g. 1, 3, 4, 14, etc.).
Soybean Cyst Nematode Resistance Source: Indicate original source of resistance (e.g. Peking, PI88788, etc.) if known.