**ADVISORY COMMITTEE ON BIOTECHNOLOGY AND**

**21ST CENTURY AGRICULTURE**

***Size and Scope of Risks Working Group Conference call—December 1, 2011***

*Draft Conference Call Summary*

A two-hour conference call was held, with Working Group (WG) members Lynn Clarkson, Michael Funk, Latresia Wilson, Josette Lewis, Isaura Andaluz, Keith Coble, Adrienne Massey, Don Cameron, Douglas Gurian-Sherman, and Chet Boruff participating. Michael Schechtman, Executive Secretary, AC21, facilitated the conversation. Five AC21 members who were not members of the working group, Angela Olsen, David Johnson, Barry Bushue, Greg Jaffe, and Keith Kisling also listened in on the conversation, as did Cindy Smith from USDA/APHIS, who serves as a liaison between USDA and committee members. The goals of call were to introduce WG members and others, to discuss how to complete the plan of work for the WG (attached as Appendix I) over several WG meetings, to begin information sharing/discussion on the first substantive topic on the plan of work, and to identify an AC21 member rapporteur to report back to the full committee.

The call started with Dr. Schechtman reviewing the charge to the AC21 and the work of the Committee at the first plenary session on August 30-31, 2011, which led to the establishment of WGs. Committee members were reminded of the role of WGs to gather and organize information for the full committee to consider, not to make recommendations.

The WG turned to the plan of work and how to complete it. (The plan of work for this WG is provided as an appendix.) Support for the overall plan of work was expressed, and one member suggested that it would be useful to share data summaries and accompanying explanatory narratives.

The conversation immediately turned to the types of data available, and one member offered his view that the scope of relevant data and the establishment for tools and standards to determine what level of low-level presence (LLP) is considered to be an appropriate tolerance will be critical. Different sources of LLP, from seed to pollen to handling, were identified and the question was raised whether all of those sources would be within the WG’s remit for discussion. It was pointed out that each source of LLP, whether pre-farm, on-farm, or post-harvest, could result in an economic loss to a farmer. Limitations in farmers’ ability to address all LLP sources were noted, e.g., low-level GE presence in seed and LLP arising from contract harvesters whose equipment is inadequately cleaned.

One member suggested that before details and caveats could be discussed, data needed to first be gathered and examined. Several other members agreed, and one noted that having the data would enable WG members to establish some screens with which to evaluate it. One WG member inquired whether it would be possible to gather more data. Dr. Schechtman indicated that it was possible in principle, noting, though, that the WG’s time is limited and there are no funds available for data-gathering.

One member noted that the seed industry has lots of data quantifying LLP, though only some companies test and are willing to share data. Some companies, including food manufacturers, test corn and soy shipments every year. He noted that his company shares data with USDA, as does Continental Grain Company and Sun Opta. He offered to provide “sanitized” data to the working group from his company, but pointed out the difficulty of distinguishing LLP arising from poor handling techniques versus other causes.

Another member noted that for corn and soy non-GE or organic products, as much as 85% of finished products test positive for GE content at or exceeding 0.1%. GE presence at or above a 0.9% level is, on average, in the “single digits” in prevalence. The relevance of these numbers would depend on whatever threshold might eventually be established, if any. He further mentioned that the testing company Genetic ID attributes more than 60% of the observed GE LLP to the starting seed.

A member noted, with respect to thresholds or tolerances, that there seems to be a growing acceptance of 0.9% LLP as an actionable standard. In Japan and Korea, for example, there are official standards on the books for non-GE shipments of 5% and 3%, respectively, but in practice shippers are held to a 0.9% standard. This seems to apply more or less to all GE-sensitive markets. He noted, however, that participants in the non-GMO project are seeking an additional, private standard that can apply to organic products.

One member pointed out that it will be important to bring to bear evidence of economic loss as opposed to evidence of unintended presence alone. She noted that the costs of entry to different markets vary, as do the price premiums offered for products meeting different specifications in different markets. In the face of the fact that private market-based standards exist, it is also worth considering the inhomogeneity of markets, and the fact that farmers are able to make choices about which markets to enter. In this regard, several members noted that it is not possible to protect farmers from their inability to meet every conceivable standard, and one member pointed out his experience that some contracts must be declined if they require unacceptable standards, or do not offer sufficient premiums to make them worthwhile.

There was discussion about the different types of data that might be considered—on unintended GE LLP and on shipment rejections. One member noted current per-bushel premiums for non-GE crops—roughly 25-80¢ for corn, and about $2.00 for soy, with organic premiums roughly $5.00 per bush of corn and $8.50 per bushel of soybeans.

One member asked whether if a testable amount of GE material is present (exceeding some contractual threshold) is all the added value lost? The response was that one can often find other markets that may accept the material, but there are added costs (e.g., trucking costs) involved in redirecting materials, and that increasingly, the tighter standards under the non-GMO project are being adopted in markets. It was pointed out, though, that the non-GMO project does set different standards for food and feed.

A question was asked how stable price premiums paid are across regions, time, etc. One member replied that prices for non-GE corn and soy are reasonably stable across the whole Midwest over the course of a year. Organic prices operate under separate supply and demand price curves and don’t move as regularly as commingled or identity-preserved non-GE commodities, but when they move, move at larger increments. They are, however, pretty stable across the whole U.S.

There was further discussion of how data would be gathered and shared. One member noted that a fair amount of data has been shared with Dr. Catherine Greene at the Economic Research Service and possibly some more might be shared as well, but that her assistance in sorting the data and delving deeper into conclusions would be very welcome.

A member asked about whether there are data on the percentages of GE material found in non-GE materials, and whether there are data on the economic harms suffered. Would there be ways to accumulate data on farmers having to sell their crops for reduced prices? Another member indicated that it might be difficult to get quantitative data on the amount of such losses, as when rejections occur, very often material is just automatically re-routed to the commingled product stream and no particular notice is taken of it. It was noted that having more qualitative data (i.e., percentages of rejections rather than size of losses) would also be helpful. Another member pointed out, though, that companies are often reluctant to disseminate information on rejections they incur, and some companies don’t want to know and don’t perform any testing. Members agreed that having even “scrubbed” data would be very helpful. Another member asked whether industry associations or Catherine Greene at ERS might help in the scrubbing of data so that confidential information is not revealed.

Another member cautioned that in viewing the data, it would be important not to lose sight of the fact that as new GE crops come on line additional LLP problems may arise.

One member offered that he had made some calculations based on barge rejections for corn and soy shipments in 2010, and on knowledge of predicted LLP based on different buffer zone sizes, and that he was able to come up with the figure that total losses in corn and soy may total about $50 million. He further offered the view that a compensation system to address such losses would probably cost two to three times as much. He also clarified that this was based on rejection rate data. He added that his overall rejection rate for his company is under 3%, and based on that level, a 0.9% tolerance for GE materials would be manageable for his company.

One member inquired how problems between farmers, or between farmers and others around LLP, are typically settled, using the courts or other mechanisms? It was indicated that the typical “standard” for resolution is to be mad at your neighbor: there have been very few court suits, and not much resolution.

He indicated, though, that the Association of Official Seed Certifying Agencies (AOSCA), a representative of which is on the WG, might also have much relevant experience. The AOSCA representative replied that AOSCA, which has been around since 1919, addresses seed certification and was set up to maintain varietal purity. What that means has evolved considerably over the years. AOSCA has offices in all the 50 States and overseas.

Returning to the topic of getting data in front of the WG, one member requested additional analysis and another presentation from Dr. Greene (who spoke to the AC21 at its last meeting), and offered to provide a memo to the WG on his calculations on losses. Another member offered to provide some summary data to the WG as well. He cautioned, though, that some data based on testing results may be unintentionally skewed. Some materials that are subjected to the more expensive and sensitive DNA testing technique may already have been pre-screened by less-expensive and less-sensitive protein testing methods and there may have been a particular reason to subject them to additional testing. Members agreed that any data provided should be accompanied with context and appropriate caveats to prevent misinterpretation.

The question arose as to whether major biotech seed producing companies, such as the one represented on the AC21 might be able to provide data, even scrubbed data? It was thought that much such data exists but would likely be proprietary. The question arose as to whether a number of biotech companies might pool some data to get around this problem and whether the Biotechnology Industry Organization representative on the WG might facilitate that process. She offered to explore the possibilities and also reach out to the American Seed Trade Association as well. Another member cautioned about the need to look not only at static data, but also to look for trends that may be emerging. It was noted that there will be different effects that will be crop-dependent, and will increase as new GE crops are commercialized.

One member inquired whether AOSCA might possess useful data for the WG to consider. The AOSCA representative indicated that AOSCA itself doesn’t see the data of interest but oversees the processes used instead. State offices, however, might possess useful data. There was a request that Dr. Schechtman send out requests for appropriate data. For both such potential requests at the State level and a request for additional activities by Dr. Greene, Dr. Schechtman asked for help in crafting the specific request. Mr. Clarkson offered to do some drafting, and the request would be circulated among WG members. Dr. Schechtman also indicated that he would need to check at USDA about his ability to reach out to the States for additional data.

At several points during the call, AC21 members who were not WG members were offered the opportunity to provide input. At this point in the discussion, a few such comments were offered. One AC21 member noted the importance of clarifying what is meant by a risk? Is it the presence of a particular percentage of GE material, or an actual loss? He emphasized the distinction between a risk versus something that happens because there has been a private contractual acceptance of a certain standard.

Another AC21 member, in agreeing, emphasized the need for a context for any data, and the ability to understand its scope and reliability. She asked about an earlier Federal Register notice she remembered seeing some time ago inquiring of organic farmers whether they had been harmed by LLP of GE materials and whether there was data coming from that notice. Dr. Schechtman indicated that he didn’t remember the notice, but would inquire.

One WG member offered to see about gathering local data from extension agents are farmers in her area as well. Another inquired about whether relevant data included information about past LLP incidents involving regulated GE materials. Dr. Schechtman indicated that information about such previous incidents had been provided to the AC21 as background material, but that it was outside the scope of the AC21’s charge.

WG members agreed that requests for additional information should go out to targeted audiences before Christmas, and any data offered to be provided by WG members should be provided to all WG members (with appropriate context and caveats) by January 10, 2012. The WG will next meet on January 17, 2012, from 10 am- noon Eastern time. One member further offered to inquire of the National Association of State Departments of Agriculture whether they also might have some useful information.

WG members chose Josette Lewis as rapporteur for the upcoming AC21 plenary session on December 6-7, 2011.

**APPENDIX I**

**Plan of work for the Size and Scope of Risks Working Group**

Address the following:

1. What types of data are available and what do they say?
2. How might different types of data be used/presented to the committee?
3. How, if at all, might additional information be obtained in a timely manner?
4. What might the working group recommend as appropriate standard for data that might be considered relevant?
5. Consideration of potential outline of an approach for the AC21 to consider this question
   1. What types of data are available or might be gotten in a timely manner?
   2. What is an appropriate standard for data that might be considered relevant?
   3. What does the data tell the committee about the need for compensation mechanism(s)?
   4. How might the committee address data gaps/project for future economic risks in evaluating the need for a compensation mechanism(s)?