**ADVISORY COMMITTEE ON BIOTECHNOLOGY AND**

 **21ST CENTURY AGRICULTURE (AC21)**

***Tools and Standards to Verify Eligibility and Losses Working Group Conference call—***

***May 7, 2012***

*Conference Call Summary*

A two-hour conference call was held, with Working Group (WG) members Mary-Howell Martens, Greg Jaffe, David Johnson, Keith Kisling, Rachel Lattimore, and Karil Kochenderfer. Michael Schechtman, Executive Secretary, AC21, facilitated the conversation and the AC21 Chair, Russell Redding, also participated. Three AC21 members who are not members of the working group, Angela Olsen, Isaura Andaluz, and Lynn Clarkson also listened in on the conversation. The goals of the call were to: recap and further consider possible recommendations from last WG meeting regarding additional USDA activities to promote coexistence; discuss how the additional questions circulated by May-Howell Martens following last WG meeting (appended below) should be addressed or brought to the full AC21; discuss whether, and under what circumstances, GE growers might be eligible for GE-related compensation; and identify a rapporteur for the WG’s activities at the next AC21 plenary session.

The WG discussion first addressed ideas suggested on the previous WG discussion regarding element 5 of its Plan of Work, namely, are there other marketplace tools (e.g., standardized testing mechanisms) that might be put in place that might facilitate the operation of a compensation mechanism? In that discussion four possible ideas had been suggested:

* Providing additional information about sampling and GE testing and interpretation;
* Developing incentives to help growers be good neighbors;
* Providing information to GE growers on what they can do in management of their own production to help neighbors;
* Promoting the development of new genetic tools for GE growers to help contain gene flow.

The question arose as to whether bullet 3 should refer to GE growers or all growers. Most WG members favored making the bullet refer to all growers. With respect to management of grower production, one WG member expressed the view that third-party verification of management measures was essential, noting that the current rejection rate for organic corn based on GE testing indicates that either current best management practices (for GE or organic production) are inadequate or inadequately followed. Another WG member noted that in the case of alfalfa production, there is now mandatory reporting on GE detections to the National Alfalfa and Forage Alliance. Another WG member noted that for third-party verification to work, there has to be buy-in from growers, not only organic and alfalfa growers. Another WG member expressed the view that a number of verification systems already exist and these should be supported, but that it would not be appropriate to set up a mandatory inspection system going to every farm. In response, it was noted that without such verification, situations can become one party’s word against another. As a practical matter, verification could even be supported as part of farmer reporting to the Farm Service Agency along with acreage reporting, including mention about neighbors plantings. Dr. Schechtman inquired of members whether, even in the absence of full agreement about the idea of third party verification, it was a topic worth bringing back to the full committee for discussion. The Chair noted that a third party component had been widely mentioned by the panel of speakers at the last plenary session, that the WG is not the place for consensus to be reached, and that it was worth discussion by the full AC21. Dr. Schechtman indicated that the topic would be brought back to the full committee as an item discussed by the WG but not endorsed by everyone.

The WG then turned to the question of what to do with the list of questions raised by a WG member, Mary-Howell Martens, following the last WG call. Dr. Schechtman, while expressing appreciation for her analyses, noted the looming deadlines for completing a report and uncertainty as to the committee’s future in a time of national elections as factors that would make it difficult for the AC21 to have detailed discussions about the issues she raised, at least in the near future. In explaining the list, Ms. Martens noted that if the committee provides recommendations without dealing with the “loose ends,” it could be problematical, especially with respect to crops with functional traits such as amylase corn. Another WG member noted that excellent points were raised in the Email, not in the form of recommendations, but as issues to consider, with baggage and implications that will need to be thought out. Some of the issues will require a much longer and broader discussion. Another WG member proposed framing the questions as future questions to be answered or issues going forward. Another WG member pointed to the questions as reflecting the “de-commoditization” of commodities streams, an issue broader than well-being of organic and non-GE production. It was noted that as more and more GE products come along, the potential for impacts of those products on neighboring farms increases. As a result, it was argued by one WG member, a process that goes beyond where we are right now is needed. The Secretary in setting up the AC21 has recognized that what we have done thus far isn’t good enough going forward.

One WG member noted that one market change that is ongoing is the tightening of requirements for allowed unintended GE presence in organic products (which may move into the organic standards themselves, based on international pressure). Many in the marketplace express the desire for zero GE content in organic products, a request farmers acknowledge as very challenging. The Chair noted that addressing this observation may fit into the third element of the Secretary’s charge to the AC21. He added that the issue raised perhaps pointed to an additional recommendation to USDA for more field research into good (or best) management practices with respect to promoting coexistence. He it might be appropriate to have management practices as a prominent element of discussion at next plenary session. One member suggested that the AC21 might either come up with principles or develop a list of good ro best management practices. Dr. Schechtman expressed caution that the AC21 may not have time to do either in the near term. Another WG member reminded the WG of the need not to move so quickly that the recommendations made won’t work, stressing the need to be sure that current best management practices are adequate. Dr. Schechtman noted the diversity of views on the adequacy of current practices. The Chair reiterated his thought that a fifth recommendation to USDA on improving best management practices would be useful. There was additional discussion on the process-based approach adopted in the USDA organic program as well as the market forces pushing for actual GE testing on organic products, on the roles of consumers and USDA education and on the constraints imposed by biology. One WG member noted that genes move both ways and lamented the attacks that had been made on GE crops but not on organic crops. He noted that the Secretary had hoped that we could learn to get along and promote a diverse agriculture. He suggested that all sides need to come together to educate the public about what a zero tolerance means and the difficulties it poses, and to affirm to the public that all the production systems are safe and all have benefits. There was additional discussion of the burden of responsibility for enabling farmers to grow the crops they want, comparing the impacts of GE production nearby to organic corn production with that of neighboring rye production on wheat farmers. There was disagreement as to whose responsibility—neighbor or farmer—it is to help address impacts of movement of the undesired material. The Chair noted that this reinforces the idea of the need for additional conversation around what happens at fencerows. Another WG member, noting that the allowed percent GE content in non-GE and organic products is getting lower and lower, said that a problem exists if we continue to let consumers think that zero is obtainable. A WG member noted that Congress passed the Organic Production Act because there was so much misinformation and misunderstanding about organic production. To the extent that much misunderstanding still exists, USDA needs to be a better job of explaining what organic production is and what it isn’t.

Dr. Schechtman then moved to the next item on the agenda, asking whether the tolls and standards thus far identified by the WG were adequate to address losses posed by farmers growing GE crops who suffer economic losses as a result of unintended presence of other GE crops. On WG member, referring to the case of one crop with a functional trait, the GE amylase corn, noted that the developer of the GE crop has put in place an elaborate closed loop system requiring many specialized procedures. She anticipated that such types of systems will also be put in place for other crops with market-relevant functional traits and pointed out the need to distinguish between the very tight identity preservation (IP) systems that would be instituted in such cases and what is appropriate for commodity-type products. In response to a question about who enforces the IP requirements and what happens to a farmer who doesn’t follow them, a WG member thought that some third party tools exist, and crops are only grown on a contract basis. Another participant replied that provision for such third party verification does not exist in the case of GE amylase corn and that, from his perspective, verification provisions are totally inadequate. Another WG member reminded those on the call that a website exists that details the IP measures in place, though the AC21 was not asked to review their adequacy. One WG member noted that APHIS did not prepare a full Environmental Impact Statement in reviewing this product, which would have required more market impact analyses, and there have not been lawsuits attempting to force the Agency to prepare an EIS, as happened with some other GE crops. Dr. Schechtman noted past history around production of GE rice engineered to produce pharmaceutical proteins, and the reaction of major rice purchasers to any potential planting of that rice within a State in which they source commodity rice. He noted that farmers could be denied their markets due to even the appearance that their crops were in some not-close proximity to a crop causing commercial concerns. A WG member noted a potential to go overboard in such instances, adding that there were measures in place in the rice case, and the supposed safety issues raised were not valid ones. A WG member noted that other issues around GE pharmaceutical crop production exist elsewhere as well. D. Schechtman noted that the issues could even exist in the case of a safe pharmaceutical, and the issue was not necessarily different for other issues around unintended GE presence. Another WG member remarked that in the case of the GE rice, no safety measures would have been sufficient, and the end result was that a company was run out of that State. WG members did agree, however, that if compensation was being considered, it would be appropriate to include compensation to GE farmers for GE-associated economic losses as well in the discussion. One WG member added that in instances of crops with functional traits, based on the IP procedures, the amount of unintended GE presence would likely be small. Other producers might still need to contract that there would be no presence of the GE functional trait materials in their crop. If it were to be present, it might be discovered later on in the processing chain and might result in lawsuits by processors against both the farmer who produced the unsuitable crop and the developer of the crop with the functional trait, leading to extensive legal action. A WG member noted that grain millers had already announced their intent to sue the developer of amylase corn if any disruption of their processing operations occurs as a result of the commercial use of their product. Members were reminded by Dr. Schechtman that the focus of the Secretary’s chare is only economic losses by farmers.

There was discussion of the question, “Is it okay for one farmer to negatively impact another farmer?” In response one WG member drew the distinction to effects relating to presumed safety of products versus those relating to marketing. A WG member pointed out the need of producers to try to do what their market requires. Dr. Schechtman noted that it might be difficult to consider the question as an absolute, noting that the actions of farmers always affect their neighbors. Another WG member said that because farmers affect farmers, some form of numerical triggers will need to be implemented, even though the AC21 has been advised not to address them specifically. One WG member responded that it would depend on the basis for the trigger, on science, marketing needs, contract, liability, etc. Each type would have a different connotation and would have implications in other contexts. Different views were expressed about whether having triggers is a good idea. If triggers were to be implemented, they would need to be well-explained and the public would need to be educated about their meaning. The alternative of process-based standards without testing requirements was raised. It was noted that, though such standards might be more reasonable, they would need to be accepted from a market standpoint and from a liability standpoint. If a producer is selling into a foreign market such as a major market in Asia, product will be tested. The AC21 is having this discussion in part because the strictly process-based organic standard is not working in the marketplace. Huge amounts of paperwork are currently required.

Returning to the question of whether the previously proposed tools and standards for eligibility and proof of damage would be adequate to apply for economic damage to GE producers, one member suggested that a slight broadening of definitions should be sufficient to address the issue. Dr. Schechtman inquired as to which eligibility requirements would need changing. One WG member offered that suggested eligibility requirement #3, i.e., “Reasonableness of the non-GE market requirements or contract requirements” be modified to eliminate the word “non-GE.” WG members supported this approach.

The WG chose David Johnson again to be rapporteur for the WG’s discussions at the upcoming AC21 plenary session. He agreed to do so and indicated that he would go over his notes with Mary-Howell Martens prior to offering his summary to the committee.

**Appendix I:**

**Email from Mary-Howell Martens raising questions to consider following the April 23, 2012 WG 3 Conference Call.**

“Hi folks -
As we were talking/listening this morning, many questions arose in my mind.  Here are some of them I feel we need to honestly consider as part of this committee’s deliberations.
Mary-Howell

**Tools for the field**
What really do we mean by  Good Management Practices?
   - unilateral (the non-GM grower takes all responsibility)
   - voluntary bilateral/multilateral
   - involuntary bilateral/multilateral

- What do we know about correlations between (1) use of GMP in the field and (2) actual rejections for AP at the buyer?  How much does this vary by crop?  Lynn has reported a 1 in 10 rejection of organic corn due to AP, but those farmers probably had GMP/organic system plans in place.  What does this tell us about the adequacy of currently accepted GMP and real-time AP?  Do we know enough to draw effective conclusions now, or is significantly more in-field research needed?

- What is the difference between standard GMP vs. geographically adapted GMP?  What geographic/climatic conditions affect adequacy of GMP?  Do we know enough to draw effective conclusions now or is more in-field research needed?

- How do we about know whether current GMP are adequate to protect against new traits like amylase that are chemically active at very low levels?

- Is the premium price paid to a non-GM grower adequate to cover ALL the additional costs if GMP are only unilateral?  Do we know whether the frequently-used justification the non-GM grower receives a premium price and therefore should be expected to do all the GMP work ACTUALLY takes into account all the additional costs.

-  What mechanisms could be used to develop voluntary vs. involuntary multi/bilateral GMP?  Who would enforce this?  What would be the consequences to the GM grower if this was not complied with?  What role should biotech companies play in developing and enforcing bilateral GMP with their farmers, in an effort to demonstrate ‘good neighbor’ intent?  What role should the biotech companies play in evaluating/policing the effectiveness of their farmers’ ‘good neighborliness’?

- if GMP are a requirement for a compensation package, should there be uniform in-field independent verification that standard GMP were indeed used?  Would a in-field verification be required for ALL non-GM growers before compensation would be considered? In Leon’s case of a farmer taking soybeans to an elevator, selling them as non-GM if they meet specs or as standard GM if they don’t, could he claim compensation if the beans ‘flunk’, even if there was no independent prior-to-harvest verification that he used GMP’s?

- For non-GM farmers who are not organic, who determines/administers a GMP strategy, verifies it was used, and evaluates its adequacy?  To be uniform for compensation, shouldn’t all non-GM farmers applying for coverage be required to comply with the same documentation and requirements?

- Who determines whether 'reasonable contracts' are indeed reasonable or unconscionable, given unique geographic/crop/market factors and other farm-specific considerations?

- As a committee, we should think now about the myriad of ways that fraud could be achieved with a compensation package, and build in requirements that would reduce that possibility (i.e. a requirement to file non-GM contracts before harvest/rejection, a requirement for third party verification of GMP, a requirement of third party verification to document/enumerate loss etc)

- What other tools exist to prevent this problem upstream, keeping GM pollen contained and away from where it is not wanted?  After all, our mothers always said, “an ounce of prevention is better than a pound of cure’.  Should not prevention be our first charge rather than our third??  Should we not be investing our primary (and considerable) pooled effort/intelligence/creativity into prevention rather than into an inherently flawed bandaid?

**Tools for sampling/testing**
- Are we confident that GIPSA-approved sampling/testing procedures are truly adequate to predict actual GM presence now?

- Even with GIPSA-approved sampling/testing techniques used now, do we know how much variability there between different samples from the same lot of grain?

- Do we know whether GIPSA-approved sampling/testing procedures are adequate to predict actual GM presence with new traits like amylase that are chemically active at very low levels?

**Tools for processors/buyers**
Concept - without a uniform established threshhold, it is up to the market to determine what is considered 'non-GM'.

- Would it not be more fair to farmers to have a standard 'yardstick' rather than being forced to adapt to a variable and changing market and insurance agent, neither of whom may have farm experience and both of whom may have significant conflicts of interest with the outcome?

- Many Non-GM Processors feel they need a uniform threshhold number to provide an unambigous, non-subjective, non-emotional yardstick for acceptance/rejection when dealing with farmers, buyers, the public, advocacy groups, and industry, all of whom have very different opinions about what is non-GM.  Should we consider this?

- How can we frame the concept of 'threshhold' both with today's GM crops and AP levels, and into the future with new traits?  Are there working examples from other industries of effective ways to frame the concept ‘threshhold’ to be independent of any message about the safety or ‘goodness’ of the technology?”