

Floyd, VA

August 27, 2012

Michael Schechtman, Designated Federal Official
Office of the Deputy Secretary, USDA
202B Jamie L. Whitten Federal Building
12th and Independence Avenue, SW
Washington, DC 20250

Dear Mr. Schechtman:

It has recently come to my attention that the AC21 committee is meeting this week to discuss and finalize recommendations to the Secretary of Agriculture regarding “coexistence” of different systems of agriculture, including those that use genetically engineered (GE) crop varieties, and those that do not, including organic, identity preserved (IP), and non-GE conventional farming systems. I have also reviewed the August 17 draft Chairman’s Report.

As a consultant and advocate in sustainable agriculture, I would like to submit the following comments regarding the proposed mechanisms for coexistence among farming systems, and compensation for economic losses when problems arise, especially GE contamination of non-GE crops.

1. The committee’s recommendation for a crop insurance based approach to compensation is simply not fair to organic and other non-GE farmers. These producers have not introduced and do not voluntarily utilize the new technology of genetic engineering on their farms, yet they frequently sustain economic harm when their crops become contaminated through unintended introduction of GE traits via pollen drift or commingling of crop seed that is beyond their control. They should not have to go to the added expense of purchasing an additional crop insurance product in order to protect their operations against economic loss when an unacceptable level of contamination occurs.

I strongly urge the Committee to consider instead your first option, creation of a compensation fund, with contributions from all stakeholders along the food and feed production chain, but *primarily* by the providers and immediate users of the GE technology. It is mainly the patent holder who benefits financially from the sale and utilization of GE crop varieties, and secondarily the farmers who utilize the GE crop varieties for their herbicide resistance, Bt content, or other benefit from engineered traits. Thus, it is only fair that these parties bear most of the responsibility of maintaining a fund from which non-GE farmers who are inadvertently (and through no fault of their own) harmed by the technology from which the technology provider and GE farmers benefit.

2. The definition of “coexistence” on which the Committee is basing its proposals appears incomplete. It might be completed as follows (additional language in italics):
“Coexistence, for the purposes of this paper, refers to the concurrent cultivation of conventional , organic , IP, and genetically engineered (GE) crops consistent with underlying consumer preferences and farmer choices, *with adequate measures to protect non-GE production systems from unintended intrusion of GE products that could lead to economic or agro-ecological harm.*”

On page 2, under “overall context for this paper,” it is stated that “It is important that every American farmer is encouraged to show respect for their neighbor's ability to make different

choices.”

What is missing here is the fact that *farmers also have the right to protection from the unwanted introduction of the products of a different crop type or management system that results in the loss of markets or other economic losses, and the right to fair compensation in the event such unwanted introduction and economic losses occur.* An additional crop insurance product, for which the non-GE farmer must pay in order to protect her/his operation from GE contamination, does not constitute fair compensation.

3. The assertions that GE crops “have been evaluated by scientific experts and regulators, and have been determined to be as safe for humans and the environment as conventional crops,” and that “the presence of genetically engineered crops does not create risks that are novel in agriculture” are unfounded. Insufficient research has been conducted to determine whether GE crops are safe for human health or for ecosystems. Preliminary findings indicated potentially significant physiological and health impacts of consuming GE foods, and subtle but significant impacts of some of the most widely used GE crops and accompanying technology components on soil biota that are essential to soil fertility. These findings have never been followed up adequately, largely because GE patent holders have quashed additional research by restricting access to GE crops for research purposes. In other words, the jury is still out on health and environmental safety of GE technology.

Furthermore, much recent discussion on coexistence relates to the introduction of agricultural biotechnology, precisely because this technology *has* created entirely novel risks in agriculture. Unlike pesticide drift and excess fertilizer nutrients, GE traits that are unintentionally introduced into a non-GE crop are transmitted generation to generation through that crop’s seed. More serious from the farmer’s point of view, the relatively recent legal precedent of issuing utility patents for GE crop varieties imposes a novel economic risk to organic, IP, and non-GE conventional farmers for two different reasons. When their crops become contaminated with patented GE traits through pollen drift, crop seed commingling, or other events beyond the farmers’ control, they often lose access to markets to whom they have promised non-GE farm products. In addition, farmers who unknowingly acquire patented GE traits and subsequently save and select their own seed (a time honored practice that has enhanced resiliency and sustainability to farming systems for millennia), have been subject to costly patent lawsuits by providers of a technology that these farmers never chose to use in the first place.

I strongly urge the Committee to consider the questions of coexistence and compensation mechanism in light of the reality that GE crop technology has indeed created novel risks in agriculture – risks to which non-GE farmers have not contributed in the least, yet to which they are the most directly exposed.

4. Language on page 5 of the report states that “Members agree that a better situation [than compensation mechanism alone] would be where good stewardship leads to effective coexistence, with compensation for unintended presence-related losses necessary only in the rare occurrence when stewardship practices prove insufficient.” Additional language states that “actions ... which would lessen occurrences of unintended GE presence with financial implications and promote a spirit of common purpose among American farmers.”

I am in general agreement with these sentiments; however, the language should more directly mandate *measures to prevent the unintended presence of GE or other unwanted material.* The purveyor and users of GE technology have the responsibility to take adequate measures to prevent introgression of GE materials onto neighboring non-GE farming operations. Note that currently

implemented stewardship practices often prove insufficient, not through negligence of either the GE or the neighboring non-GE farmer, but through wholly inadequate “stewardship” practices recommended by the technology provider. For example, corn and canola can cross pollinate over distances of up to half a mile, and preliminary studies showed that *genetic engineering significantly increases the tendency of these crops to outcross over long distances*. Thus, far from being a “rare occurrence”, unintended presence of GE pollen in an organic or non-GE crop field is a very frequent occurrence, and often an unavoidable one given the current structure of American agriculture and the overwhelming dominance of patented GE varieties in the commodity crop seed marketplace. Technology providers must provide GE farmers with accurate information on the required buffer distances needed to protect neighboring non-GE crop fields from cross-contamination, and responsibility for ensuring that adequate buffers and other preventive practices are implemented should rest primarily with the technology provider and the GE farmer.

Organic and non-GE farmers must not be required to give up productive acreages near the perimeter of their farms in order to ensure that their market’s GE contamination thresholds are not exceeded; or if they must adopt such buffer zones within their boundaries, they must receive appropriate compensation. Although 0.9% appears to be a widely accepted threshold for “acceptable” GE content in a crop marketed as non-GE, some markets may set higher standards (lower acceptable percentages). Given the unknowns about the nutritional and health impacts of genetically engineering food crops with current technology, I strongly urge the Committee to support a coexistence system in which these higher standards can be honored.

One final comment: one of the most corrosive and destructive forces undermining “a spirit of common purpose among American farmers” has been the aggressive litigiousness of GE patent holders, especially Monsanto Corporation – and that corporation’s public ads urging farmers to inform Monsanto if they see neighbors saving their own corn, soybean, cotton, or canola seed.

Thus, I again urge the Committee to recognize the very real and novel risks that the dominance of several key crops by patented GE varieties impose on organic and non-GE farmers, and develop coexistence and compensation recommendations that truly address the potential hardship that this reality imposes on organic and non-GE farmers.

5. On page 6, it is stated, “Any compensation mechanism that may be put in place that is perceived by one segment of agriculture as placing unfair burdens on that sector will only divide agriculture.”

This is a real concern. Given that it is primarily the *patent holder / technology provider* that stands to benefit most from GE crop technology, it is only fair that this sector, which is by far the wealthiest link in the entire crop production chain, bear the majority of the cost of any compensation mechanism. Farmers who use GE technology might also be seen to benefit to some degree from the technology. However, a 2009 study released by the Union of Concerned Scientists, entitled *Failure to Yield*, clearly showed that nearly all of the yield improvements in agronomic crops to date has resulted from classical in-field breeding, and not biotechnology. Furthermore, whereas Roundup Ready crops have offered the convenience of being able to control weeds with post-crop-emergence sprays of Roundup, the evolution of Roundup resistant weeds, such as the highly aggressive Palmer amaranth, is rapidly eroding this advantage. Thus, it is only fair to ask the GE farmer to provide a fraction – and only a fraction – of the funds for the proposed compensation mechanism. The fact that GE farmers already pay a substantial premium for the patented crop seed further mandates that, to be fair, the technology provider pay the lion’s

share of the compensation costs – perhaps 90 percent.

Except in rare cases of gross farmer negligence, there is no reason for non-GE farmers to pay for damages they suffer from an inherently uncontrollable technology that they neither need nor want nor purchase.

6. Language on pages 7 and 8 refer to the need for adequate mediation of “farmer-farmer disagreements.” I strongly urge the Committee to give due attention to farmer-technology provider and farmer-seed vendor disagreements – situations in which the farmer is often disempowered and unfairly treated. The Committee must develop recommendations for mechanisms that will bring an end to patent holder lawsuits and harassment of farmers, especially non-GE farmers who never wanted the patented material in the first place, and inadvertently incorporated it into the crop seed they have been saving – often for years, decades, or even generations.
7. On page 7 it was noted that “Many AC21 members felt that burdens would be unfairly distributed under [a general compensation fund] and also felt that establishing such a fund would suggest to consumers or trading partners that there was something unsafe about the products produced by the entities funding the mechanism.”

Many trading partners *already* consider the products inadequately tested for safety, and people have an inherent right to choose whether or not to consume GE-containing foods. The compensation fund would be intended simply to protect farmers who suffer economic losses through GE contamination, and *not* to compensate consumers who believe their health has been harmed by these products. I hope that, in its deliberations, the AC21 committee will recognize the irrelevance of this argument against the compensation fund option.

8. On pages 10-11, three options are given for compensation mechanisms – but all three are based on the crop insurance model. Again, I urge the Committee not to abandon prematurely the general compensation fund model, as it has the greatest potential for fairness to all stakeholders, as discussed above.
9. Under Stewardship and Outreach, on page 14, is stated:
 - “Because the decision to produce for a commodity or identity-preserved market is influenced by factors such as price, yield, weather, and the contract terms, it is important that farmers incorporate coexistence considerations in their planning, agronomic, and harvest-handling operations. In particular, farmers need to have ongoing dialogues with their neighbors on how they can work together regarding identity-preserved production.
 - “Farmers also need to be well-informed about the implications of contractual agreements they may reach for identity-preserved products. When growers use written contracts, those contracts should provide clarity on at least the following parameters: grower practices for producing a crop of desired quality and characteristics, the percentage of unintended presence allowed; point of delivery; time of delivery; and compensation; and should highlight the need for the grower to work with his/her neighbors to address shared concerns.”

These paragraphs again place too much of the onus of responsibility on the non-GE farmer who neither choose to use this technology nor to have their neighbors use it. Whereas non-GE farmers should take reasonable measures to avoid the accidental introduction of GE materials onto their farms (for instance, taking care to verify seed sources as non-GE and

uncontaminated; and not removing existing natural barriers to pollen drift such as forested buffers), they should *not* be required to plant a new buffer/barrier, nor to give up organic or non-GE production in a half-mile-wide strip of land because their adjoining neighbor is producing GE corn or canola!

I urge the Committee to consider rewording this language to ensure that excessive burden of responsibility does not rest on the non-GE farmer. In addition, I recommend the following new language after the second bullet cited above, to provide guidance and parameters for responsibility for the GE farmer:

“GE farmers need to be fully and fairly informed about the implications of technology agreements signed with the GE technology provider, contractual agreements with buyers of their products, and liability issues related to unintended presence of GE material on neighboring non-GE farms.”

10. On page 16, under Recommendation III regarding USDA strengthening mechanisms for stewardship and cooperation, etc., I would recommend that the technology provider be encouraged or required to train and assist the GE farmer in implementing a substantial share of the “farming practices ... that minimize unwanted gene flow.”
11. On page 17, regarding the need to gather more data on the incidence of crop contamination with GE material, and the resultant economic losses, the report states: “• Having such data would help to inform domestic and global policy discussions that may arise regarding potential compensation mechanisms to address any actual and documented economic losses.”

I would like to recommend that the Committee *at least* postpone the decision regarding compensation mechanism (compensation fund versus crop insurance models, etc) until this data is in hand.

12. On page 18, regarding recommendations related to research needed, the report suggests:
 - “Development of genetic tools to limit unwanted gene flow to sexually compatible plants.”

This sounds dangerously close to the now-discredited “terminator technology” in which patented genetically engineered seed simply cannot reproduce itself for the next generation. This technology flies in the face of the inherently regenerative nature of cropping systems, and will no doubt cause unintended and unpredictable disruptions, not only in the physiology and nutritional composition of the crop itself, but could have wider implications for the overall agroecosystem. For example, escape of the terminator trait itself could render neighboring non-GE crops unable to make viable seed.

I would strongly urge the Committee to replace this bullet with the following:
“Identify those crops for which, because of their strong outcrossing over long distances, implementation of today’s GE technology cannot be done without causing uncontrollable and unacceptable levels of contamination of non-GE varieties of the same species. Prohibit or limit the commercialization of GE varieties of those crop species as appropriate.”

13. Again on page 18, under Seed Quality, the first paragraph states: “The continued success of agriculture depends on a diverse supply of high-quality seed that is of the purity necessary to meet each farmer’s needs.”

Note that, especially for commodity crops like corn, cotton, soy, and canola, whose seed markets are dominated by patented GE varieties, a “diverse supply of high-quality seed” has already been lost. Farmers simply cannot find a diversity of crop germplasm, and often cannot even find non-GE seed at their local supply stores.

I urge the Committee to develop recommendations for steps to address this problem, to reverse the loss of diversity in these four crops, and to prevent similar losses from occurring in other crops.

14. On page 19, the report states:

- “It is important to point out that, especially in an age of ever-increasing technical capabilities for testing and detection, it is not realistic to suggest that commercial seed producers can guarantee zero presence of unintended genetics in seed.”

True – however it does make sense to set a much stricter standard than the 0.9% contamination level cited for non-GE food / feed markets. For seed stock, a 0.9% contamination one year will expand through recombination and cross pollination to several % the next generation, and generalized presence of GE material throughout the seed within a few additional generations.

15. Near the top of page 20, the report continues:

- “It is important that the agricultural community devote resources to ensuring that there is an adequate range of high quality locally adapted seed varieties using elite germplasm available to serve all producers. USDA can help the agricultural community identify market needs.”

This is perhaps the most cogent statement in the entire report, and is a clarion call for renewed support for public breeding efforts that yield public, non-patented, farmer-ready crop varieties. This vital, yet sorely neglected sector of agricultural research and development can and must be revitalized. I urge the committee to back this statement up with specific, action-oriented recommendation statements for next steps the USDA can take to restore and maintain this genetic commons for the benefit of all farmers.

16. Finally, under Recommendation V related to purity of USDA germplasm banks, I would strongly urge the Committee to add the following prevention statement as the first bullet:

- Prevent the introduction of unwanted transgenic traits into publicly held germplasm.

Thank you for taking these comments into consideration in your deliberations. While I speak here solely on my own behalf, I can state, based on my experience in the agricultural community, that many of my concerns are widely shared among organic, sustainable, and some conventional producers.

Sincerely,

Mark Schonbeck, Ph.D.
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