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GMO-LetterToSecretary-Jim Riddle, Organic Independents LLP

Submitter Information

Name: Jim Riddle

Address:

Winona, MN,

Organization: Organic Independents LLP

General Comment

Comments on the NOSB on the Ad hoc GMO Committee - Proposal Letter to the Secretary on GMOs

By Jim Riddle

I would like to commend the Ad hoc GMO committee for drafting a letter to the Secretary expressing concerns over GMO contamination of organic crops and products. I wholeheartedly agree that it cannot be the organic producer's responsibility, alone, to protect organic crops and products from GMO contamination.

I have attached a draft publication that I have written for the University of Minnesota, outlining Best Management Practices for GMO and non-GMO growers to minimize GMO contamination of organic and other non-GMO crops. The publication is going through final formatting and editing, but I am providing this draft copy today, due to your May 3 deadline for comments.

I hope that you find the publication useful. Please let me know if you would like to receive notice, when the final version is released, by contacting me at my UMN email address, riddl003@umn.edu

Respectfully,

Jim Riddle

Attachments

GMO-LetterToSecretary-Jim Riddle, Organic Independents LLP-attachment

For more information on GMO contamination prevention, contact:

USDA National Organic Program - <http://www.ams.usda.gov/AMSV1.0/nop>
USDA/APHIS Biotech Regulatory Services (BRS) - <http://www.aphis.usda.gov/biotechnology/status.shtml>
Genetic ID (testing lab) - <http://www.genetic-id.com/>
Non-GMO Project - <http://www.nongmoproject.org/>
Center for Food Safety - <http://www.centerforfoodsafety.org/>
Non-GMO Report - <http://www.non-gmoreport.com/>
The Organic Center - <http://www.organic-center.org>
National Organic Coalition - <http://www.nationalorganiccoalition.org/>
Blue River Hybrids - www.blueriverorgseed.com/docs/PuraMaize-Fact-Sheet.pdf

Over the past 30 years, Jim Riddle has been an organic farmer, inspector, educator, policy analyst, author, and consumer. He was founding chair of the International Organic Inspectors Association, (IOIA), and co-author of the IFOAM/IOIA International Organic Inspection Manual. He has trained hundreds of organic inspectors worldwide. Jim served on the Minnesota Department of Agriculture's Organic Advisory Task Force 1991-2009, and was instrumental in passage of Minnesota's landmark organic certification cost-share program. Jim currently works as Organic Outreach Coordinator for the University of Minnesota Southwest Research and Outreach Center and is the elected Chair of the Winona County Soil and Water Conservation District Board. Jim is former chair of the USDA National Organic Standards Board.

This publication has been reviewed by Jeff Coulter, University of Minnesota; Bruce Potter, University of Minnesota; and Lisa Bunin, Center for Food Safety.



GMO CONTAMINATION PREVENTION

What Does it Take?

By Jim Riddle, Organic Outreach Coordinator

Best Management Practices for Producers of GMO and Non-GMO Crops

Farmers need to be able to provide customers with a choice between GMO (genetically modified organisms), non-GMO, and organic crops and products. Since different types of agriculture are practiced on adjoining fields, suitable measures during planting, cultivation, harvest, transport, storage, and processing are needed in order to prevent the accidental mixing of GMO and non-GMO materials. Contamination may result from seed impurities, wind or insect-borne crosspollination, volunteer or feral plants, and/or inadequate harvest and handling practices.

Producers of GMO crops, including herbicide resistant canola, soybeans, alfalfa, sugar beets, and corn; insecticidal (Bt) corn, sweet corn and cotton; and industrial crops, such as alpha-amylase corn for ethanol, have a responsibility to implement best management practices (BMPs) to minimize genetic drift and other forms of contamination, which can negatively impact organic, identity preserved (IP), and other non-GMO producers.

Organic, transitional, IP, and other non-GMO crop farmers also need to implement BMPs to minimize risks of GMO contamination. This publication outlines some BMPs that GMO and non-GMO growers can implement to prevent, or at least minimize, genetic drift, commingling, and other forms of GMO contamination.



Before you grow:

Know What's Out There

For all growers – Know which crops have been approved or “non-regulated” by Federal agencies. As of 2012, numerous varieties of GMO field corn have been released, with traits including herbicide resistance, insecticidal properties to kill corn borers and/or corn rootworms, and alpha-amylase to break down starch for production of ethanol. Herbicide resistant soybeans, canola, sugar beets, alfalfa, and summer squash have been released, along with insecticidal cotton and sweet corn and disease resistant papaya. Many crops are “stacked” to contain multiple traits of herbicide resistance and insecticidal proteins. The Non-

GMO Sourcebook maintains a list of approved GMO crops at:

<http://www.nongmosourcebook.com/geneticallymodifiedcropsmarket.php>

USDA/APHIS Biotech Regulatory Services (BRS) maintains a searchable database on biotech, which is updated daily. The website has a series of tables that document petitions for non-regulated status (granted and pending) and graphs with aggregated data by type of GMO crop, location, and more, at:

<http://www.aphis.usda.gov/biotechnology/status.shtml>



Know the Regulations

GMO growers - Become informed about the regulations pertinent to GMO crops. For example, farmers who plant certain Bt corn varieties are required to plant non-Bt corn “refuges” in an attempt to delay the development of resistance among target pests. Make sure to follow all GMO planting regulations, as stated on seed labels and in technology agreements that you sign.



Non-GMO growers – While there are no regulations pertaining to non-GMO production practices and label claims, organic growers are prohibited by the Organic Foods Production Act (OFPA) and the National Organic Program (NOP) Regulation from planting or using any genetically engineered crops, inputs, or planting stock, referred to as “excluded methods.” Any organic growers who knowingly plant or use GMOs are subject to revocation of their organic certification and may be prosecuted for violation of OFPA.

Know Your Records

GMO grower - Keep records of all fields where GMO crops are planted. Maintain field maps or GPS/GIS systems to record GMO and non-GMO crop locations. Document harvest and handling activities. Document your efforts to minimize GMO contamination. With good records, you will have a better chance of identifying sources of GMO contamination, eliminating them, and determining liability, if needed. Valid records of BMPs can help protect you from being held liable should contamination occur.

Non-GMO growers - You must document efforts to minimize GMO contamination, especially if you are certified organic. With good records, you will have a better chance of limiting losses, identifying causes of problems, rectifying the situation, and determining liability, if needed. Valid records of crop yields, test results, cleaning activities, storage, transport, and sales may help establish claims for losses, should contamination occur.



Know your risk

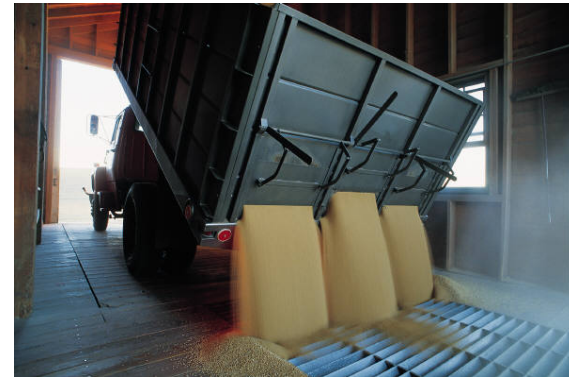
GMO growers - Be clear on your risks and liability coverage. For example, Bt corn is an EPA-registered pesticide. In addition to genetic drift exposure, pesticide trespass laws may apply if the Bt toxin planted on your land is found to cause harm to neighboring landowners under State pesticide trespass statutes. Review your farm’s liability insurance policy to determine if you are covered for genetic drift and related damages. Talk with your seed dealer and GMO company representatives concerning liability, since the GMO company retains ownership of the proprietary crops planted on your farm. Establish who is liable for potential damages prior to planting GMO crops.

Non-GMO growers – Explore your risks, when planting crops that have GMO counterparts in your region. Talk with your insurance agent. Does your crop insurance policy cover losses due to GMO contamination? Does the biotech company carry insurance to cover losses when its property is found to cause harm to others? Document all of your attempts to minimize contamination, along with your crop production, yield, and sales records. These records will be invaluable, should you suffer harm and seek compensation for damages.

Know Your Transport

GMO growers - Carefully inspect and clean trucks and trailers after your crops have been unloaded. This includes tarps and trailer covers. Keep records to document the cleaning of transport units. By keeping records to document that you clean storage and transport units when you are finished using them, you can help verify that your GMO crops did not contaminate someone else's non-GMO crops.

Non-GMO growers - Carefully inspect and clean trucks and trailers prior to loading with non-GMO grain. Make sure that transport units, including overseas shipping containers, are free of grain, dust, and other foreign material. Keep records to document cleaning activities, including clean transportation affidavits and bills of lading.



Know Your Buyers

GMO growers - Know the market requirements for the GMO crop(s) being grown. Not all GMO crops are accepted by all buyers. Be prepared to segregate crops to meet buyer expectations. Know your buyer's sampling and testing protocols. Know if your crops are likely to be exported to foreign markets. Know the market-driven GMO rejection levels (tolerances) for the crops grown. Know the labeling requirements for GMO crops, if crops are being exported. Communicate with buyers, GMO seed companies, and Extension agents concerning GMO market issues.

Non-GMO growers - Know the contract specifications under which non-GMO crops are being grown. Know your buyer's sampling and testing protocols. Know the market-driven GMO rejection levels (tolerances) for the crops grown, especially if the crops are destined for export. Know if your buyer requires organic certification or other non-GMO certification, such as certification offered by the Non-GMO Project. Communicate with buyers and organic certifying agents (or non-GMO certification body) concerning GMO contamination issues.



Know Your Crop

GMO growers - Prior to planting, farmers who intend to plant genetically engineered crops should verify the type of GMO seeds to be planted. Read and understand licensing agreements issued by biotech seed suppliers. Follow all planting instructions. Retain copies of licensing agreements you have signed and all other communications with GMO seed suppliers. Know the distance pollen is likely to travel. The isolation distance required for the production of certified seed provides guidance on the distance pollen is likely to travel for any given crop. Know the types of tests used to establish the presence of the biotech crop(s) you are growing. Manage herbicide resistant crops to minimize the development of herbicide resistant weeds. Rotate between herbicide resistant and non-resistant varieties. Rotate herbicide chemicals. Make sure that GMO crops do not "volunteer" the following year, presenting additional risks of contamination. To avoid potential liability, clean up, and compensation issues, consider not growing promiscuous GMO crops in areas where contamination of organic and other non-GMO crops is likely.

Non-GMO growers - One option to avoid GMO contamination is to not plant crops, which have genetically engineered counterparts that can cross-pollinate or otherwise contaminate the crops you intend to grow. If you intend to grow crops with GMO counterparts, prior to planting, verify that certified organic or non-GMO seeds will be used. Obtain statements from seed companies concerning the non-GMO status of the varieties to be planted. Ask for test results of seeds, for all applicable GMO "events." Retain copies of test results, seed samples, and letters from seed suppliers. Make sure not to use genetically engineered legume inoculants. (e.g. Dormal Plus is a GMO.)



In addition, organic growers are required to use organically grown seeds, in the form, quality, quantity, and equivalent variety needed by the operation. Keep records of all attempts to source organic seeds for all crops, including cover crops, especially if you find that organic seeds are not commercially available in the varieties you need. Work with seed companies that are developing pollen-blocking varieties; companies who specialize in organic seeds or that have taken the "Safe Seed Pledge"; and companies involved in "Purity Plus" or other non-GMO seed certification systems.

FLATELESS PLANTER SUGGESTIONS
ALWAYS MAKE FIELD CHECKS TO ENSURE PROPER SETTINGS
For more specific recommendations, please visit www.dekalb.com.

After Clean Vacuum Blower	Recommended Vacuum Level (Inches of Water). Apply to:									
8 Pro Series	32 to 36	37 to 40	41 to 45	46 to 49	50 to 53	54 to 57	58 to 61	62 +		
Bag Wt. (lbs.) of 80K seeds	8 to 9	9 to 10	11 to 12	12 to 14	14 to 16	16 to 18	18 to 21	21 to 24	24 to 28	28 to 33
Standard Disc (A50617)										
Small Disc (A45213)										
8000 RidgeRunner Blower	Recommended Vacuum Level (Inches of Water).									
Bag Wt. (lbs.) of 80K seeds	32 to 36	37 to 40	41 to 45	46 to 49	50 to 53	54 to 57	58 to 61	62 +		
Corn Disc 38 call (D14485)	17 to 19	17 to 19	17 to 19	18 to 21	19 to 21	19 to 21	19 to 21	19 to 21	19 to 21	19 to 21
8000 RidgeRunner Blower	Follow manufacturer's recommended speed and use graphs.									
8000 RidgeRunner Blower	Recommended ounces of pressure (PSI).									
White Air	32 to 36	37 to 40	41 to 45	46 to 49	50 to 53	54 to 57	58 to 61	62 +		
Bag Wt. (lbs.) of 80K seeds	2.5 to 3.0	3.0 to 3.4	3.5 to 3.7	3.8 to 4.0	4.0 to 4.5	4.5 to 5.0	5.0 to 5.5	5.5 to 6.0	6.0 to 6.5	6.5 to 7.0
Regular Disc (850430)										
Small Disc (850430)										
Case HI Vacuum	Singulator Setting of 3.0. Recommended Vacuum Setting (Inches of Water). Use graphs.									
Bag Wt. (lbs.) of 80K seeds	32 to 36	37 to 40	41 to 45	46 to 49	50 to 53	54 to 57	58 to 61	62 +		
Seed Disc 4855 (150995)	18 to 20	18 to 20	18 to 20	19 to 20	20 to 22	20 to 22	20 to 22	20 to 22	20 to 22	20 to 22
Case HI Cycle	Use standard A-pocket drum with 0.220 inch holes. 36 hole. Part #60270033 to #60270036.									
Bag Wt. (lbs.) of 80K seeds	32 to 36	37 to 40	41 to 45	46 to 49	50 to 53	54 to 57	58 to 61	62 +		
Pressure (psi)	8 to 9	9 to 10	10 to 11	10 to 11	10 to 11	11 to 12	12 to 13	12 to 14		
Full Up										
Full Up										
Half Down										
Half Down										
Full Down										
Full Down										

Use the E-pocket drum, 0.100 inch holes. Part #546902C1.

Use the B-pocket drum with 0.220 inch holes. 36 hole. Part #60270033 to #60270036.

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Know Your Farm

For all growers – Know your fields - determine which have the highest risk of creating or receiving GMO contamination, and which are least susceptible to GMO contamination to or from neighboring crops. Select isolated fields for planting wind and/or insect pollinated crops such as corn and canola. Know the prevailing wind direction. Establish physical buffers, such as windbreaks and hedgerows, to minimize contamination from GMO pollen drift.



Know Your Neighbors

For all growers – Establish good lines of communication with your neighbors, especially those whose fields directly adjoin fields where GMO or non-GMO crops are to be planted.

GMO growers - Notify neighbors that you are planting GMO crops. Let them know which crops are being planted and the steps you are taking to minimize GMO pollen drift.

Non-GMO growers - Let your neighbors know where your organic and/or designated non-GMO fields are located. Get to know the farmers who farm adjoining fields, even if they rent the land. Post "Organic Farm" signs along field margins, where needed.



Know Your Neighbors' Crops

For all growers – Gather information from neighbors, seed dealers, Extension educators, and input suppliers on the types of crops being grown in the vicinity of your farm.

GMO growers - Know which neighbors grow organic, IP and other non-GMO crops. If your neighbor is growing non-GMO corn and you are growing Bt corn and planting "refuges" of non-Bt corn, plant your non-GMO acres next to your neighbors' non-GMO fields, unless the non-GMO seed is pre-mixed in the bag with the GMO seed. If possible, adjust your planting dates so that your GMO crops do not pollinate at the same time as neighboring non-GMO crops. Be willing to provide your cropping information to neighbors so they can make appropriate adjustments.

Non-GMO growers - Know which GMO-related plantings are in the area. If neighbors are growing Bt crops and maintaining "refuges" of non-BT corn, ask them to plant their refuges in areas that adjoin non-GMO fields to provide some buffer protection. If possible, delay your planting dates so that your non-GMO crops do not pollinate at the same time as adjoining GMO crops.

Know Your Equipment

For all growers – Know how your equipment is used, calibrated, and cleaned. This includes rented and borrowed equipment and equipment used by custom operators. Know how to clean all pieces of equipment, including planters, combines, balers, wagons, trucks, etc. If the equipment is to be used for planting, harvesting, or handling any non-GMO crops, make sure to thoroughly clean and purge equipment prior to use. Don't let your equipment contaminate your own or someone else's non-GMO crop. Keep records to document your equipment cleaning activities.



Know Your Crop Storage

For all growers – Carefully inspect and clean storage units prior to use. Make sure that storage units are well segregated and that GMO and non-GMO crops are not stored in the same vicinity. Dust and grain from GMO crops can contaminate non-GMO crops. Thoroughly clean augers, elevators, bins, grain dryers, rotary screen cleaners, etc., if they are to be used for both GMO and non-GMO crops. Have proper cleaning equipment, such as air compressors or vacuums, on hand. Document your cleaning activities.



Know Your Harvest

Non-GMO growers - Submit crop samples prior to harvest for GMO testing. If contamination is likely, collect samples along a grid pattern, going from areas with the highest risk to areas with low risk. Maintain and submit the samples separately in case only part, but not all of the field is contaminated. Make sure samples are tested for all applicable GMO events, including stacked traits. Retain duplicate crop samples and copies of test results.