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national farmers union
In Union Is Strength

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United States Department of Agriculture
Animal Plant Health Inspection Service (APHIS)
Docket No. APHIS-2007-0044
Regulatory Analysis and Development
PPD, APHIS, Station 3A-03.8
4700 River Road, Unit 118
Riverdale, MD, USA 20737-1238

Dear Sir or Madam,

The National Farmers Union (NFU) of Canada welcomes the opportunity to file comments in relation to Docket No. APHIS-2007-0044, specifically the Environmental Impact Statement (EIS) released December 14, 2009 by the United States Department of Agriculture.

The NFU has many serious concerns regarding the EIS, and strongly opposes the APHIS decision to grant non-regulated status to two genetically-modified (GM) or genetically-engineered (GE) alfalfa lines, J101 and J163, both produced by Monsanto Company and Forage Genetics International.

There were only two options considered by APHIS with regard to these two lines of genetically-modified alfalfa. One option was to deregulate (grant non-regulated status) to these varieties, and the other was to “maintain the status of GT (glyphosate-tolerant) alfalfa Lines J101 and J163 as regulated articles”. The decision by APHIS to completely deregulate these alfalfa varieties without any limitations or protections for farmers, and without any protections to guard against contamination of non-GM, or GM-sensitive, markets, could potentially have far-reaching environmental, economic and legal consequences.

Because this is the first time the USDA has prepared this type of analysis for any GM crop, the precedent set by this case will be used to determine the future parameters for regulation of GM plants. The shortcomings of this EIS with regard to full consideration of environmental and economic concerns must, therefore, be addressed before these GM alfalfa varieties are deregulated.

The USDA advertises its basic mission as “protecting American agriculture” – and claims to take into account the interests of all types of agricultural enterprises, including organic, conventional and GM. However, if APHIS deregulates the production of these two GM alfalfa varieties, the likelihood of contamination is a virtual certainty. The opportunity for farmers to produce organic alfalfa, or conventionally-grown alfalfa that is free of glyphosate-tolerant genes, will steadily deteriorate. There are no protections from GM-contamination for farmers and exporters. The potential economic harm that will result from market loss is a serious issue that was not given adequate consideration in the EIS.

While USDA claims to support the “co-existence” of GM crops with conventional and organic crops, the lack of enforceable protections render the concept of “co-existence” meaningless. USDA does have the authority to impose protective measures that would include restrictions on use, geographic limitations, and planting isolation distances. The “all or nothing” approach of the USDA left any potential options to protect farmers unanalyzed. It is absolutely critical that the USDA protect all farmers.

In its EIS, the USDA suggests that contamination is unlikely to occur because alfalfa is “typically” harvested before 10% of the plants reach full flower. The reality is, of course, much different because there is tremendous variability in the timing and extent of alfalfa harvests. Farmers cannot harvest hay in the rain, for example. Not only does wet weather adversely affect the timing of the hay cut, but it also encourages flowering in the plants. In addition, there is still going to be contamination resulting from the flowering of even 10% of the alfalfa field in any given situation. One cannot ignore the possibility of mechanical breakdown in harvesting and baling equipment, which can also create delays that allow flowering of the alfalfa to advance beyond desirable levels.

Alfalfa is also widely harvested, baled and transported on open trailers for livestock feed. The potential vectors of contamination are huge, with seed or pollen being shaken and blown out down the highways and roadways. Animals which consume this alfalfa could no longer be classified as organic, and organic dairy production would become very difficult, if not impossible, with the inevitable contamination of feed stocks.

The USDA also places the burden of preventing contamination unfairly on those farmers who do not grow GM alfalfa. The onus is on non-GM alfalfa farmers to change their planting and harvest schedules to “avoid simultaneous flowering” with GM alfalfa in neighbouring fields. Non-GM alfalfa farmers are also required to be responsible for removing commercial beekeepers’ hives from the vicinity of the non-GM alfalfa field. Given the fact that honey bees forage at distances over 10 kilometers (6 miles), the task of controlling this method of contamination is nothing short of herculean.

GM alfalfa genetic material is also likely to contaminate non-GM alfalfa stands through cross-pollination by other methods. Feral alfalfa may serve as a conduit that transfers the trait of glyphosate resistance to conventional or organic alfalfa in future years. It is impractical for farmers to control the spread of feral alfalfa which may contain the glyphosate-resistant gene through the application of non-glyphosate herbicides.

The loss of markets is a particularly key issue that must be addressed in the EIS. For the USDA to simply dismiss the issue of market contamination is not acceptable. A majority of American alfalfa seed exports go to Saudi Arabia and a majority of American alfalfa hay exports go to Japan and South Korea. All of these countries will reject GM-contaminated seed and hay. Examples of massive losses due to market contamination are plentiful. The Liberty Link rice incident resulted in economic damages of over \$1 billion – a cost that was borne by American exporters.

In Canada, flax growers experienced a devastating drop in market prices in the fall of 2009, when the European market suddenly closed due to the discovery of GM contamination in shipments of flax from Canada. The European market is extremely important to Canadian flax producers, accounting for approximately 70% of the total exports. Prices fell virtually overnight from about \$12 per bushel to about \$6.50 per bushel. While flax prices in Canada have currently stabilized at about \$8.00 per bushel, there is great concern over the high cost of attempts to clean up and eliminate GM contamination in the flax seed supply. The original source of the contamination was a GM flax variety that was deregistered before it could be distributed to farmers for general planting. The variety was pulled from the system precisely because of the potential harm it would cause if it contaminated the overall flax supply. Unfortunately, the seed from this variety has entered the system and the damage is now done. Farmers will be left to bear the cost of this disaster. What is particularly distressing is that even Breeder seed that is controlled very carefully has been found to be contaminated with this GM variety, thereby making all the progeny of two other flax varieties contaminated. This contamination issue at the Breeder seed level is not an isolated incident. Studies conducted in Canada within five years of the introduction of GT and other GM canolas showed contamination also at the Breeder seed level.¹ Organic farmers had to give up growing canola altogether to maintain their certifications. Conventional farmers who do not wish to grow GM canola have huge difficulties sourcing seed. Again, alternate forms of production disappear.

Clearly, the only way to avoid similar disasters with other crop varieties is to prevent the release of GM varieties into the environment in the first place.

The widespread use of glyphosate-resistant genes in a growing number of crop varieties is aggravating the glyphosate-resistant weed and volunteer problem. The use of this

¹ R.K.Downey and H. Beckie, “Report on Project Entitled Isolation Effectiveness in Canola Pedigree Seed Production”, Agriculture and Agri-Food Canada, Saskatoon Research Centre, Saskatoon, SK. “Seventy samples of Certified canola seed from 14 different herbicide susceptible, open-pollinated canola varieties, produced in 2000, were supplied by growers and/or seed companies...At least 2000 seeds from the 70 samples were screened for the presence of Roundup and/or Liberty tolerant genes using selective herbicide germination tests. Two of the 14 varieties greatly exceeded the 0.25% maximum for the presence of other varieties permitted by the Association of Official Seed Certifying Agencies (AOSCA). One of these varieties had a combined Roundup plus Liberty contamination of 0.81% while the other contained 0.69% contamination. A third variety marginally exceeded the allowed maximum at 0.28%. The contamination found in these varieties almost certainly occurred in the breeding nurseries during variety development rather than from outcrossing during pedigree seed production.”
“<http://www.saskorganic.com/oapf/pdf/canola-study.pdf>”

genetic trait in crops such as soybeans, corn, cotton, sugarbeets and canola is leading to the increased application of glyphosate herbicides. This often results in combining glyphosate with other toxic herbicides to control glyphosate-tolerant volunteers. In addition, the evidence indicates that glyphosate-resistant “super weeds” are becoming a major problem in many parts of the United States and Canada.

The USDA concludes in its EIS that the introduction of these two lines of GM alfalfa will lead to increased concentration and dominance of GM alfalfa in the marketplace, but it dismisses this trend as being of no consequence. The reality, however, is the level of concentration in the seed market is significant, and marketing programs of major biotech seed companies have forced farmers to utilize seed varieties that are genetically-engineered and in some instances, “stacked” with multiple traits. Meanwhile, seed varieties that are lower cost, and conventionally-bred, are removed from the market. Consequently, farmers’ seed costs are rapidly increasing.

Alfalfa is an important crop, both as a source of fodder, and also as a soil-builder and nitrogen-fixer. It has a very competitive nature, and generally establishes quite easily without requiring herbicides. These very characteristics make it an important rotational crop in organic and conventional agriculture. Its ability to out-compete weeds makes it invaluable to clean up crop land from several weed issues. It prevents erosion where it is planted, and by fixing nitrogen, it adds to soil fertility. This makes it extremely important in organic agriculture, as herbicides and fertilizers are not an option. GM crops are also not an option, so contaminated or GT alfalfa will render the use of alfalfa for these purposes unlikely. As a consequence, organic agriculture will be destroyed in many areas. Conventional alfalfa producers in Canada, and I expect to a large extent in the US, feel that this is a largely unnecessary and harmful product.

For these reasons, the National Farmers Union of Canada strongly opposes the approval of the GM alfalfa varieties J101 and J163.

Sincerely,

Terry Boehm
President
National Farmers Union