NORGES NATURVERNFORBUND
FRIENDS OF THE EARTH NORWAY

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Direktoratet for naturforvaltning
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Høringsuttalelse om markedsføring av genmodifisert mais (EFSA/GMO/NL/2004/02)

Norges Naturvernforbund mener det er grunn til å frykte at dyrking av 1507 mais med insekt- og pesticidsresistens vil ha betydelig negativ effekt på økosystemene der maisen dyrkes. Jordbruksplanter som er genmodifisert for toleranse mot sprøytemidler har vist seg å øke sprøytemiddelbruken (se referanse). Det betyr økt giftbruk og økt fare for tap av biodiversitet .

Det at den aktuelle søknaden kun gjelder for bruk til mat og ikke dyrking, finner Naturvernforbundet helt irrelevant for om søknaden kan godkjennes eller ikke. Vi mener det vil være umoralsk av Norge og EU å "eksportere" miljøskade ved å tillate import av en råvare eller produkter av en råvare som man vet vil skade miljøet i det området hvor den dyrkes. Ingen slik råvare eller slikt produkt bør godkjennes. Videre må alle forskningsresultatene som avgjørelsen bygger på gjøres tilgjengelige for land utenfor Europa som vurderer dyrking, import eller eksport av råvaren/produktene slik at de også har mulighet til å beskytte sitt miljø.

Konklusjon
Norges Naturvernforbund mener det er godt grunnlag for å konkludere at 1507 maisen er miljøskadelig, uten samfunnsmessig nytteverdi og ikke i samsvar med en bærekraftig utvikling. Videre mener vi godkjennelse av omsetting av råvare eller prosesserte produkter vil være uetisk. Vi ber derfor norske myndigheter om å avslå søknaden.

Vennlig hilsen
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Referanse:

“Genetically Engineered Crops and Pesticide Use in the United States:
The First Nine Years”
Dr. Charles M. Benbrook
Northwest Science and Environmental Policy Center
Sandpoint Idaho
October 25, 2004

EXECUTIVE SUMMARY

The major genetically engineered (GE) crop varieties commercialized since 1996 in the United States have been designed to help control a damaging class of insects and simplify herbicide-based weed management systems. Over the first nine years of commercial use, 670 million acres of crops expressing GE traits have been planted, or about 23 percent of the total 2,970 million acres of crops harvested across the country during this period.

Remarkably rapid and extensive adoption of GE varieties in three major crops -- corn, soybeans and cotton – has brought enormous commercial success to the biotechnology and seed industry and reflects the popularity of these technologies to row crop farmers. Still, adoption is limited to two traits in three crops that are, for the most part, either fed to animals or heavily processed. Staple crops consumed directly by people in the U.S. remain GE-free, with the exception of very limited experimental plantings.

Crops engineered to tolerate applications of herbicides, or so-called “herbicide-tolerant” crops (HT), account for the largest share of GE acres. About 487 million acres have been planted since 1996, or 73 percent of total GE crop acres. HT soybeans are the most widely planted GE crop technology and account for over half the total acres planted to GE varieties since 1996. The vast majority of HT crops are engineered to tolerate glyphosate (trade name “Roundup”), a herbicide introduced to the market in 1972, by Monsanto. Crops engineered to tolerate glyphosate are also called “Roundup Ready.”

Corn and cotton have been genetically engineered to express the bacterial toxin Bacillus thuringiensis, or Bt. This transgenic trait allows plants to manufacture within their cells a crystalline protein that is toxic to most Lepidopteran insects. Some 183 million acres of Bt transgenic corn and cotton have been planted since 1996, representing 27 percent of total GE crop acreage.

Pesticide Reduction Claims are Unfounded

The debate over the costs, risks, and benefits of agricultural biotechnology has been underway for about a decade, with no end in sight. Throughout this period, biotech proponents have claimed repeatedly that today’s GE crop technologies are reducing pesticide use. A comprehensive accounting of the impacts of HT and Bt transgenic varieties on total pesticide use demonstrates unequivocally that in the first three years of commercial use, this claim was justified. But since 1999 it has not been.

GE corn, soybeans and cotton have led to a 122 million pound increase in pesticide use since 1996. While Bt crops have reduced insecticide use by about 15.6 million pounds over this period, HT crops have increased herbicide use 138 million pounds. Bt crops have reduced insecticide use on corn and cotton about 5 percent, while HT technology has increased herbicide use about 5 percent across the three major crops.
But since so much more herbicide is used on corn, soybeans, and cotton, compared to the volume of insecticide applied to corn and cotton, overall pesticide use has risen about 4.1 percent on acres planted to GE varieties.

The increase in herbicide use on HT crop acres should come as no surprise. Weed scientists have warned for about a decade that heavy reliance on HT crops would trigger changes in weed communities and resistance, in turn forcing farmers to apply additional herbicides and/or increase herbicide rates of application. The ecological adaptations predicated by scientists have been occurring in the case of Roundup Ready crops for three or four years and appear to be accelerating. Farmers across the American Midwest look back fondly on the initial efficacy and simplicity of the
Roundup Ready system and many miss the “good old days.”

Reliance on a single herbicide, glyphosate, as the primary method for managing weeds on millions of acres planted to HT varieties remains the primary factor that has led to the need to apply more herbicides per acre to achieve the same level of weed control.

Average application rates of glyphosate in HT weed management systems have jumped sharply in the last few years as a result of the spread of glyphosate-tolerant or resistant marestail (also known as horseweed), shifts in the composition of weed communities, and substantial price reductions and volume-based marketing incentives from competing manufacturers of glyphosate-based herbicides.

While ecological changes are pushing herbicide use upward on HT crop acres, regulatory forces and industry innovation are edging average application rates downward on land planted to conventional varieties. S-metolachlor herbicide was registered in time for the 1997 crop season. It is a new and more biologically active version of metolachlor, an older, high-rate herbicide. Smetolachlor is applied at 65 percent of the rate of original metolachlor and has reduced herbicide use by 10 to 12 million pounds per year since 1998. The Environmental Protection Agency also placed new restrictions on the most widely used corn herbicide, atrazine, triggering substantial drops in per acre application rates in 2000 and again in 2002.

As a result, the difference in the total pounds of herbicides applied per acre planted to HT crops compared to non-HT conventional varieties has increased steadily since 2000. Three factors – the emergence and spread of weeds resistant or less sensitive to glyphosate, limited supplies of conventional crop seeds in a number of popular maturity groups, and aggressive herbicide price cutting by companies seeking a larger share of the market -- are working together to create the “perfect storm” that now threatens to undermine the efficacy of HT technology.

For the foreseeable future, HT crops will increase pesticide use more than Bt transgenic crops reduce it. Unlike the worrisome erosion in the efficacy of HT technology, Bt transgenic corn targeting the European corn borer, and Bt cotton continue to perform well. Resistance management plans appear to be working.

For all current and future pest management related GE technologies, when and how GE varieties are utilized will determine their cost, benefits and longevity. The unraveling of HT technology is just the latest reminder that too much of a good thing is the kiss of death in the world of pest management

http://www.biotech-info.net/technicalpaper7.html
http://www.biotech-info.net/Full_version_first_nine.pdf