



GMO Study Committee
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Drew L. Kershen
Earl Sneed Centennial Professor
University of Oklahoma
College of Law



Coexistence

- Three Themes
 - Good Husbandry: good agricultural practices that are practical and inexpensive
 - Neighborly Cooperation: communication, working together, neighborly attitude
 - Farmer choice: allowing farmers to choose the agricultural production the individual farmer desires as best for the farmer's operation, be it conventional, organic, or transgenic



Coexistence

- “The evidence to date shows that GM crops, which now account for the majority (60%) of total soybean, corn and canola grown in North America (because of the farm level benefits obtained such as yield gains, cost savings and greater convenience/flexibility), have co-existed with conventional and organic crops without significant economic or commercial problems.” *Graham Brookes & Peter Barfoot, Co-existence in North American agriculture: can GM crops be grown with conventional and organic crops?, PG Economics Ltd. (Dorchester, UK 7 June 2004)*

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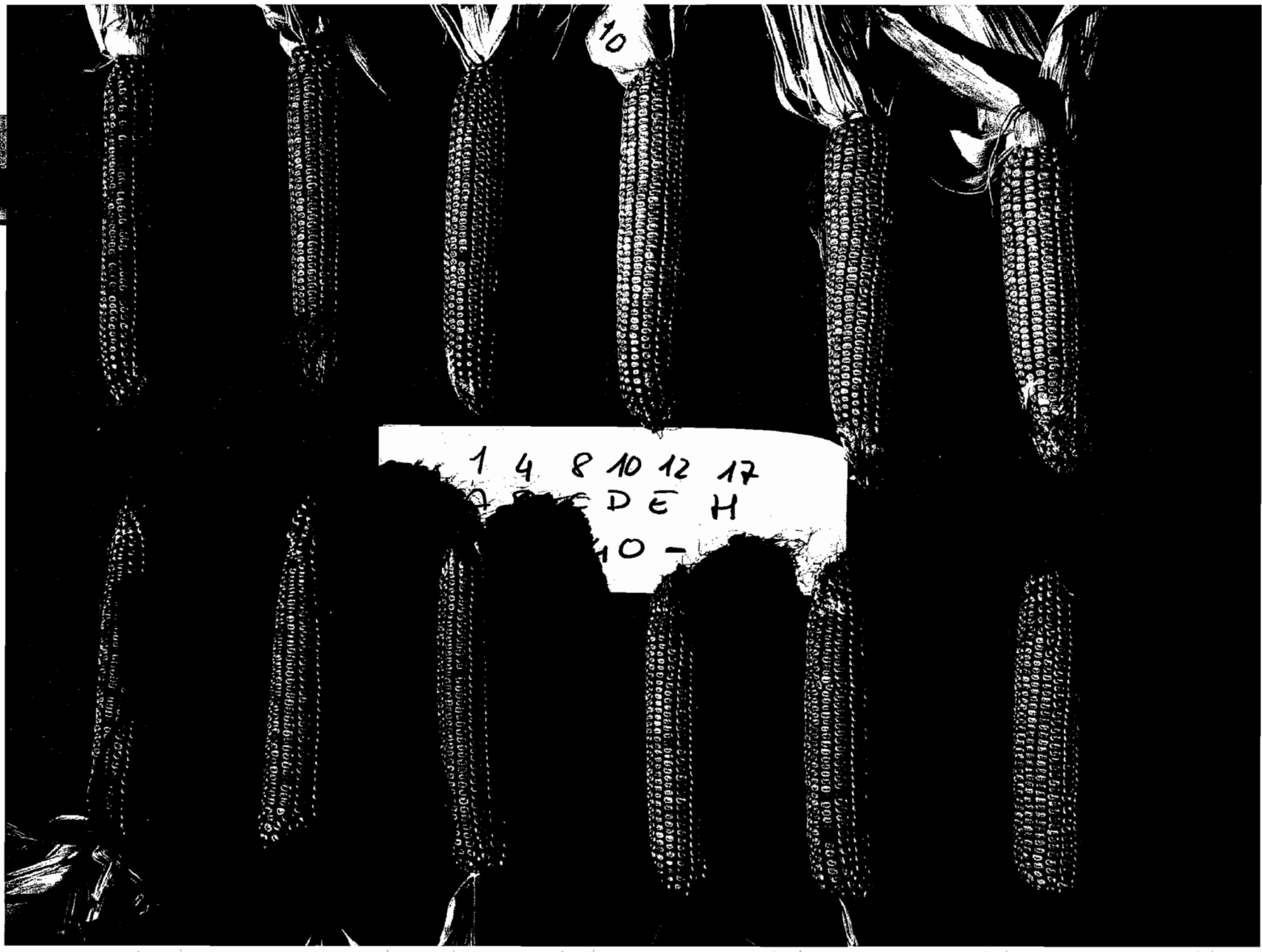


Table 2. % of GM DNA in the harvest of conventional maize fields bordering GM maize fields

Site (coded)	Bt maize (ha)	Distance		
		0 - 10 m	20 - 30 m	50 - 60 m
Silage maize				
1.01	3.0	0.19%	0.06%	0.00%
1.02	1.9	3.74%	0.23%	0.04%
1.04	1.3	0.64%	0.15%	0.11%
1.05	0.4	0.02%	0.01%	0.00%
1.06	0.4	0.14%	0.08%	-
1.07	0.3	0.26%	0.08%	0.03%
1.09	7.0	0.63%	0.07%	0.03%
1.10	1.0	0.23%	0.02%	0.02%
2.01	9.0	0.82%	0.19%	0.15%
2.02	23.0	0.65%	0.64%	0.16%
3.01	1.0	0.20%	0.13%	0.01%
4.01	2.3	3.30%	0.59%	0.21%
4.02	4.0	0.72%	0.48%	0.29%
6.01	4.9	2.12%	0.32%	0.11%
6.02	6.5	2.77%	0.32%	0.10%
6.04	3.0	0.60%	0.29%	0.19%
7.01	1.1	0.94%	0.30%	0.29%
8.01	15.7	2.66%	0.27%	0.25%
Grain maize				
1.03	1.8	1.86%	0.69%	0.36%
1.08	2.9	1.61%	0.26%	0.18%
6.03	18.3	0.63%	0.32%	0.07%
7.02	8.5	1.23%	0.32%	0.11%
7.05	8.5	1.00%	0.58%	-
7.06	5.0	0.21%	0.09%	0.02%
7.07	5.0	0.80%	0.28%	0.05%
7.08	5.0	0.52%	0.08%	0.05%
Crushed husks and cobs				
7.04	6.2	2.81%	0.36%	0.07%



Coexistence -- Canola

- “Other sources of contamination must be small, because the highest frequency of resistance detected on a field basis was 0.07% and because no resistance was detected in 23 fields, despite the examination of over 700,000 seedlings.” M. Rieger et al, Pollen-Mediated Movement of Herbicide Resistance Between Commercial Canola Fields, *SCIENCE* Vol. 296 at p. 2386 (28 June 2002).
- 63 fields sampled in Australia – study conducted with non-transgenic canola: one variety herbicide-resistant, the other not herbicide-resistant. Distance between fields varied from adjacent to several kilometers. Even adjacent fields were below 1% presence of herbicide-resistant canola in non-herbicide-resistant planted fields.



Organic Standards in the U.S.

- “When we are considering drift issues, it is particularly important to remember that organic standards are process based. Certifying agents attest to the ability of organic operations to follow a set of production standards and practices that meet the requirements of the Act and the regulations. This regulation prohibits the use of excluded methods in organic operations. The presence of a detectable residue of a product of excluded methods alone does not necessarily constitute a violation of this regulation. As long as an organic operation has not used excluded methods and takes reasonable steps to avoid contact with the products of excluded methods as detailed in their approved organic system plan, the unintentional presence of the products of excluded methods should not affect the status of an organic product or operation.” USDA National Organic Program Final Rules 2000, Comment at p. 34.



Organic Standards in the EU

- 2.2.3. *Labelling threshold values:* "The organic farming regulation establishes that no GMOs shall be used in production. Thus, materials, including seeds, which are labelled as containing GMOs cannot be used. However, seed lots containing GM seeds below the seed thresholds (which would not need to be labelled for this GMO presence) could be used. The organic farming regulation does allow for the setting of a specific threshold for the unavoidable presence of GMOs, but no threshold has been set. In the absence of such a specific threshold, the general thresholds apply." **COMMISSION RECOMMENDATION of 23 July 2003 on guidelines for the development of national strategies and best practices to ensure the coexistence of genetically modified crops with conventional and organic farming (2003/556/EC)**



Organic Standards IFOAM

- “Marketing of organic products and information about organic agriculture Organic certification shall not imply it is a “GE-free” certification. Rather it shall be presented as guaranteeing “production without GE/GMOs”. As there is no guarantee that organic products are 100% free from any GMO pollution, organic products shall not be marketed as “GE-free”, unless there are specific safeguards and certification procedures for that specific product. Organic producers and associations shall actively inform the consumers of this fact to ensure fair marketing claims and to avoid future debates about consumer deception.” Adopted by the IFOAM World Board, Canada May 2002



Contractual Obligations

- “Where non-GM crop growers voluntarily choose to impose additional or stricter requirements on their production systems over and above the legal minimum, in order to gain market or price advantage, then non-GM crop growers are responsible for ensuring those requirements are met and for meeting their associated costs, if any.” Report of the Working Group, DAF-Ireland (Sept. 2005) at p. 119
- Depending upon the voluntarily accepted contract specifications, adventitious presence can affect premiums and market access.
- Zero tolerance as a contract standard is not achievable without a ban on transgenic agriculture.



Civil Legal Liability

- As of December 2005
 - There have been no lawsuits between farmers about adventitious presence;
 - There has been one successful lawsuit (the StarLink litigation) relating to an unapproved-for-food transgenic crop commingled into the food supply;
 - There have been no successful lawsuits relating to
 - Loss of premium due to adventitious presence;
 - Loss of organic certification;
 - Loss of market access;
 - “pure economic loss” related to ethical values, socio-economic values, etc.; or
 - Product liability lawsuits related to health claims. No adverse health claims have ever been verified.



Thank you.

I look forward to answering questions about coexistence, organic standards, contractual obligations, and liability.