BÖLW

Bund Ökologische Lebensmittelwirtschaft

BÖLW-Herbsttagung am 25.11.2003 in Berlin

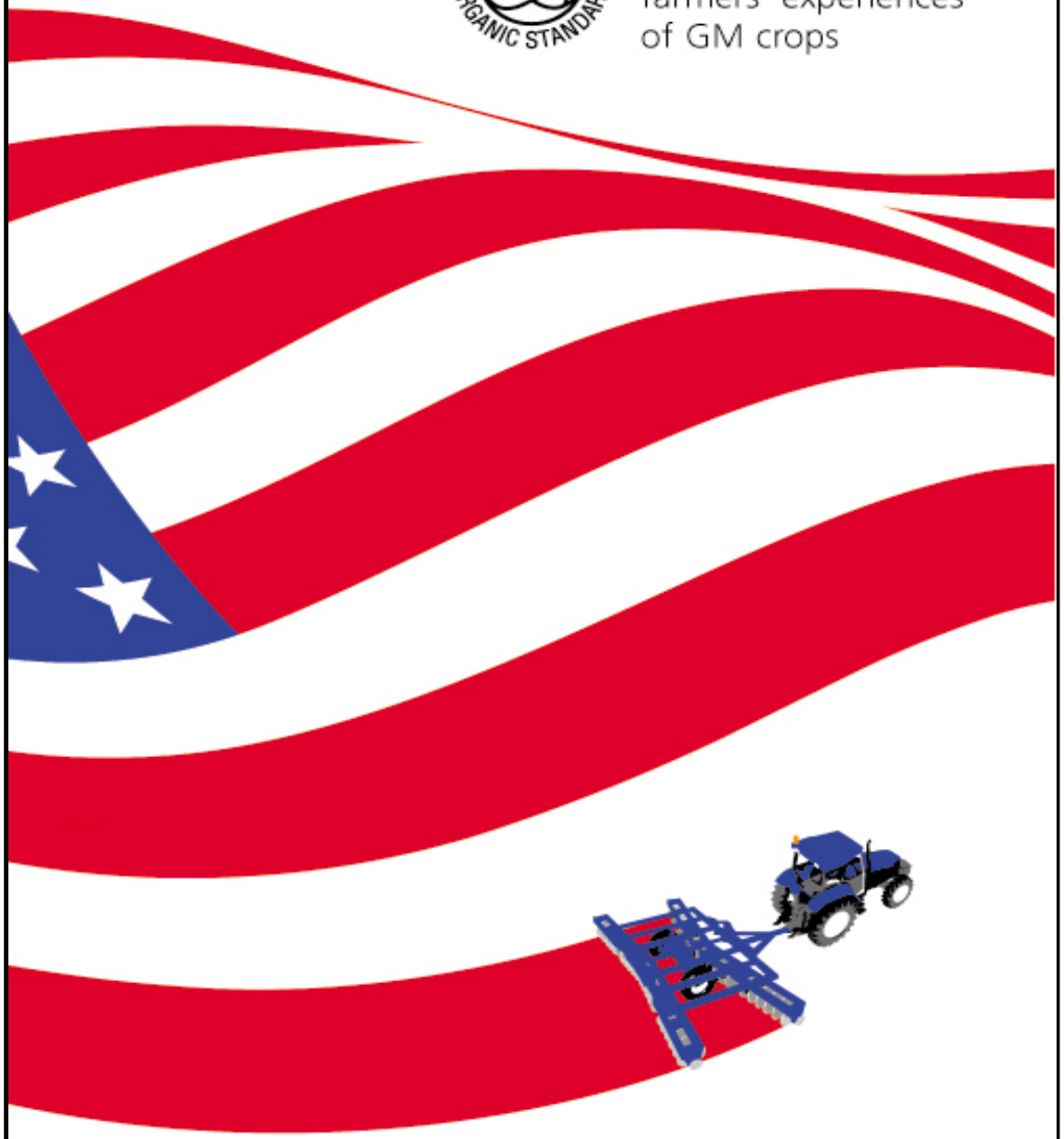
„Wenn das Gentechnik-Moratorium fällt – wie handelt die Lebensmittelwirtschaft?“

„Seeds of doupt:
North american farmer’s experiences of GM crops“

Powerpoint-Präsentation des 1. Vortrages von Gundula Azeez
Policy Managerin, Soil Association, UK

Seeds of doubt

North American farmers' experiences of GM crops



Yield

- Farmers chose GM crops for higher yields
- Most GM crops did not raise yields and some reduced yields
- RR soya – 6-11% less than otherwise identical non-GM varieties, due to a side-effect
- RR rape – 7.5% less
- Bt maize – 2.6% yield increase, but not enough to cover higher costs

“The application of biotechnology at present is most likely…not to increase maximum yields. More fundamental scientific breakthroughs are necessary if yields are to increase”

USDA, 2001 Agriculture Information Bulletin

Herbicide use

- Claim that herbicide tolerant (HT) crops require just one herbicide spray proved false
- HT crops resulted in greater use and reliance on herbicides
- New weed problems, leading to even greater herbicide use:
- More resistant weed species + species becoming more resistant + spread of HT volunteer plants

Pesticide use

- Bt maize produces Bt toxin continuously in all its tissues
- Pesticide applications increased
- Bt maize only controls ECB, so pesticides still needed for other pests
- Bt cotton - successful in some states, but not in others
- Farmers must plant “refuges” of non-Bt crops
- Bt crops threaten organic production

Farmer Income

- Profitability lower with GM crops
- HT soya - $8.8/acre less
- Bt maize - $1.3-£3.2 less
- GM seeds very expensive
- Fall in herbicide prices masked increase in herbicide use
- GM crops receive lower market prices

HT Volunteer Plants

- Major, widespread problem in Canada with GM rape > now one of top 10 agricultural weeds
- Cross-pollination producing new GM plants resistant to several herbicides
- Farmers forced to use several and more toxic products

“Farmers in this province are spending tens of thousands of dollars trying to get rid of this canola that they did not plant. They have to use more and more powerful pesticides to get rid of this technology”

Professor Martin Phillipson, 2001

Contamination

- Contamination of whole supply chain: seed, crops, distribution, and processing.
- Contamination of: non-GM crops by GM crops + of crops with unapproved genes + of crops with pharmaceutical genes
- Led to major practical, economic and legal problems:

1 Non-GM farmers have lost sales: difficult to source GM-free seed, grow GM-free crops & to supply GM-free markets because of lack of segregation.

“GMOs can play havoc with speciality commodities because of pollination drift and contamination of the seed supply… This raises the question of whether conventional commodities and GMOs can realistically co-exist.”

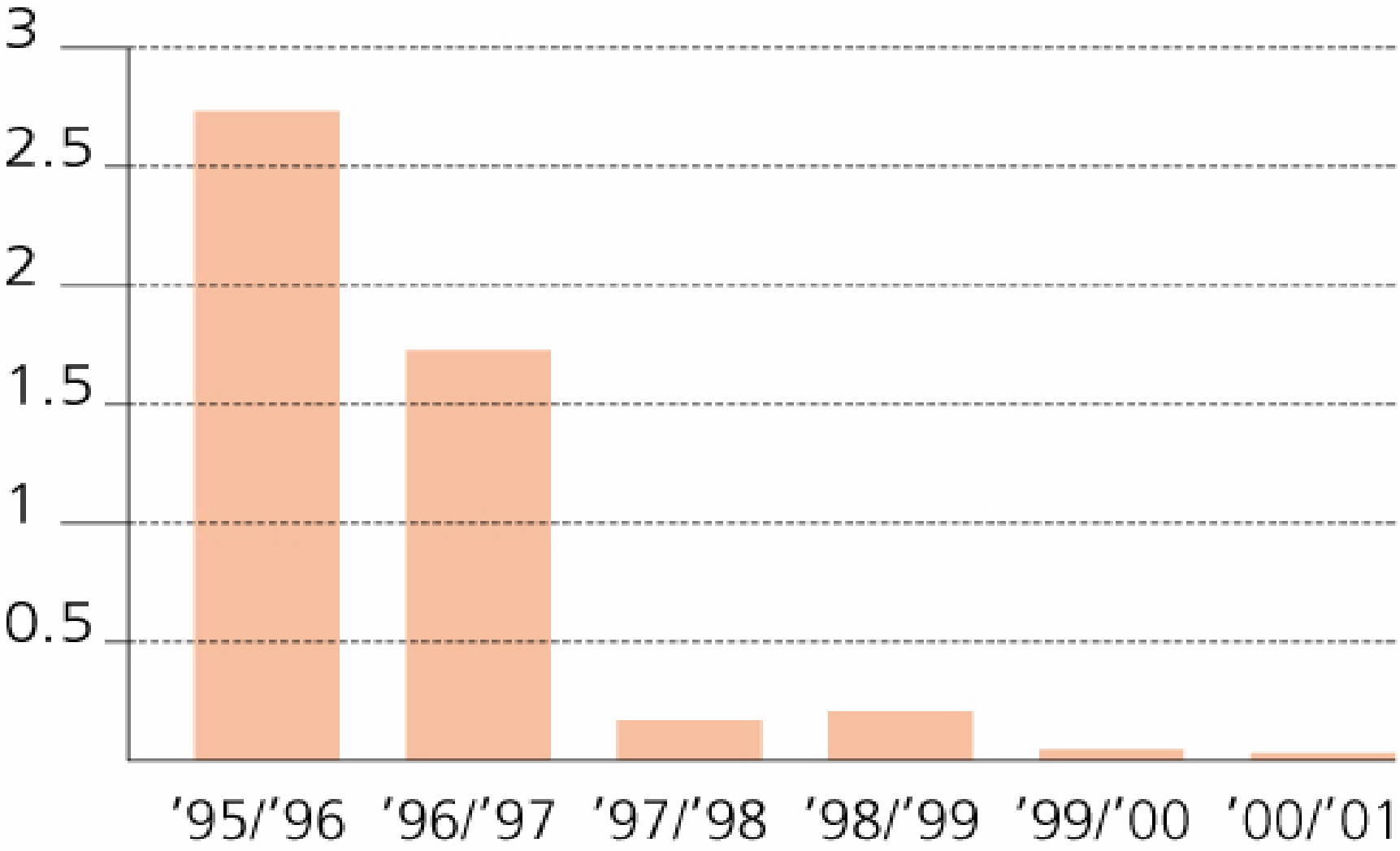
Dan McGuire, policy chairman,
American Corn Growers Association, 2002

(contamination cont.)

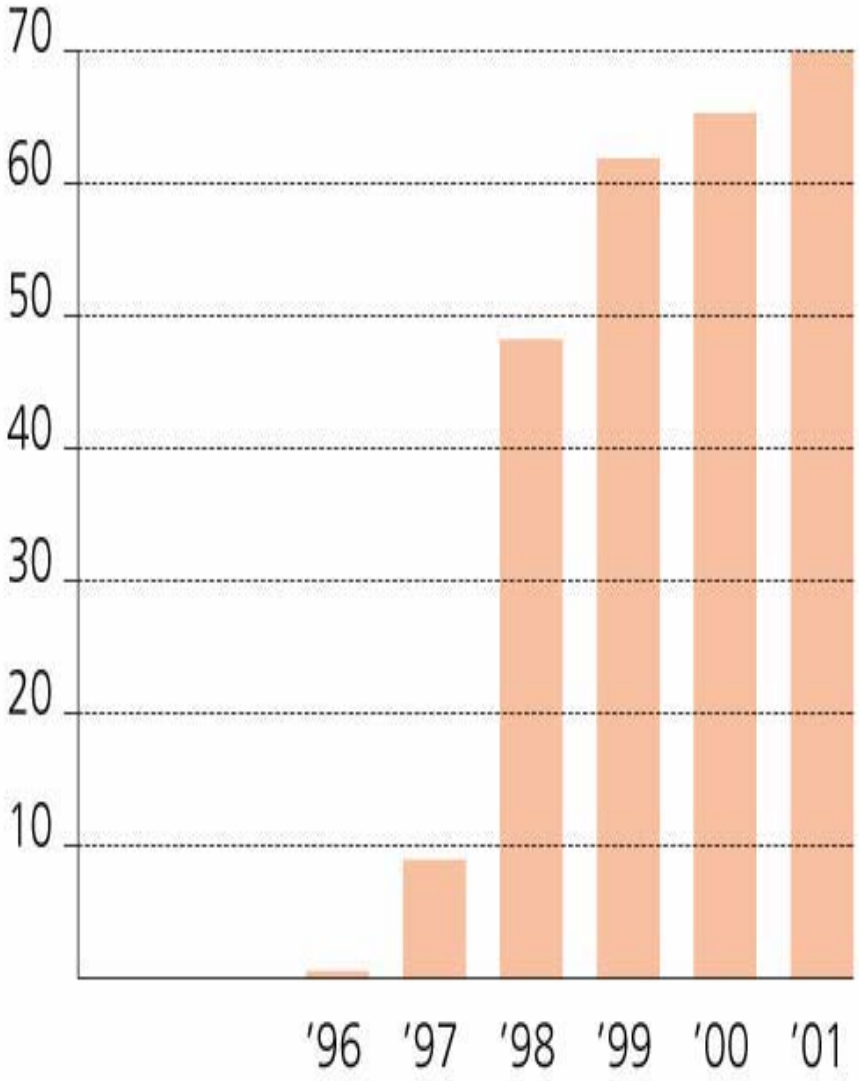
2 Major disruption to organic sector: loss of organic rape sector in Saskatchewan + in US, organic farmers struggling to avoid contamination of their crops.

3 Costly food product recalls. Eg. StarLink maize incident cost an estimated $1 billion

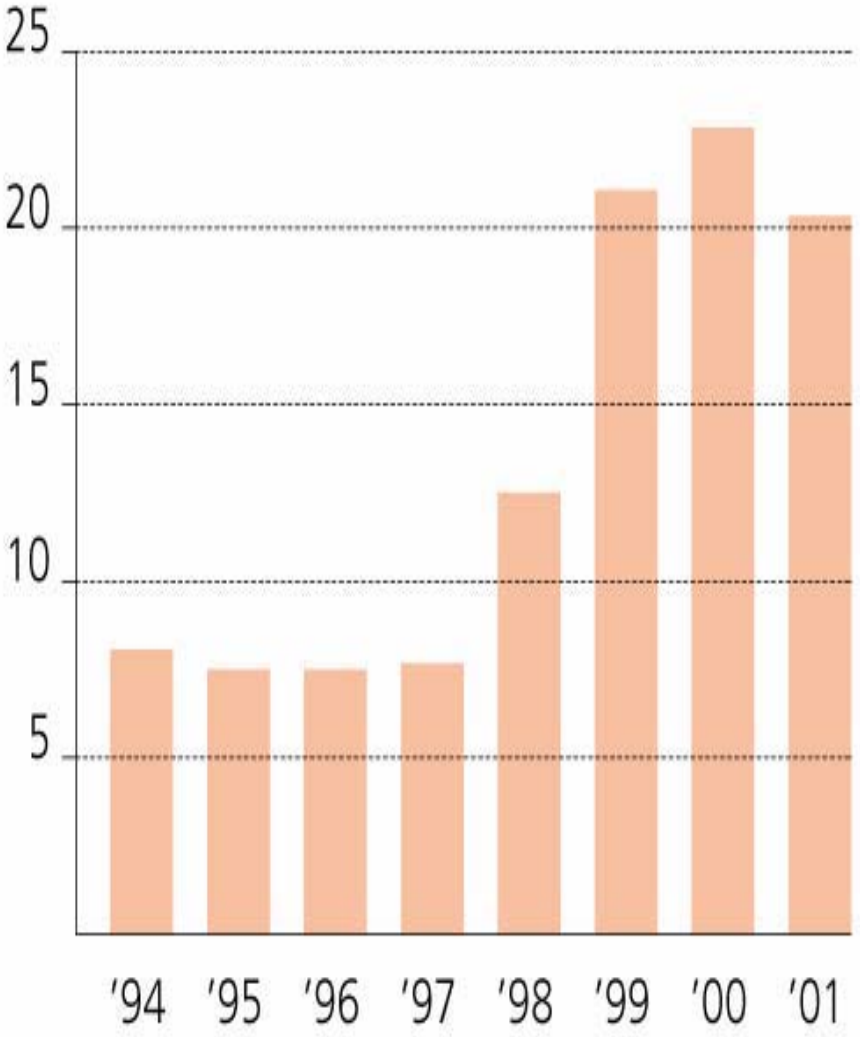
US maize exports to the EU since the introduction of GM crops (in millions of tonnes)



Area planted to GM maize and soya in the US (in millions of acres)[27]



Direct government payments to US farmers (in $ billions)[28]



(contamination cont.)

6 Farmers accused of having infringed company patents when GM plants found on their land. Farmers liable even if their crop contaminated by neighbour's GM crops.

“Farmers are being sued for having GMOs on their land that they did not buy, do not want, will not use and cannot sell.”

Tom Wiley, farmer, North Dakota