

Austria's experiences with zero GMO-tolerance –

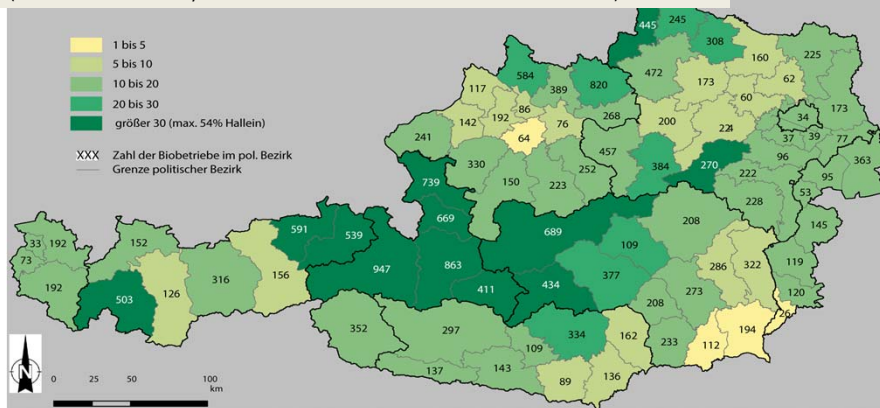
- critical reflections and some lessons learned

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Special feature:

Austria is within the EU leading in Organic Farming

2013: 21.161 Organic farms; 16,7 % of all farms (127.040) - 18 % of UAA
 (within the INVECOS – System – ----- absolute and relativ in the Provincial Districts)



GM-maize contamination in 2001 had consequences:

- besides the discussion on problems co-existence and the drafts on GMO-Banning Acts and GE-precautionary Measures Acts

The Ordinance on Genetically Modified Seed

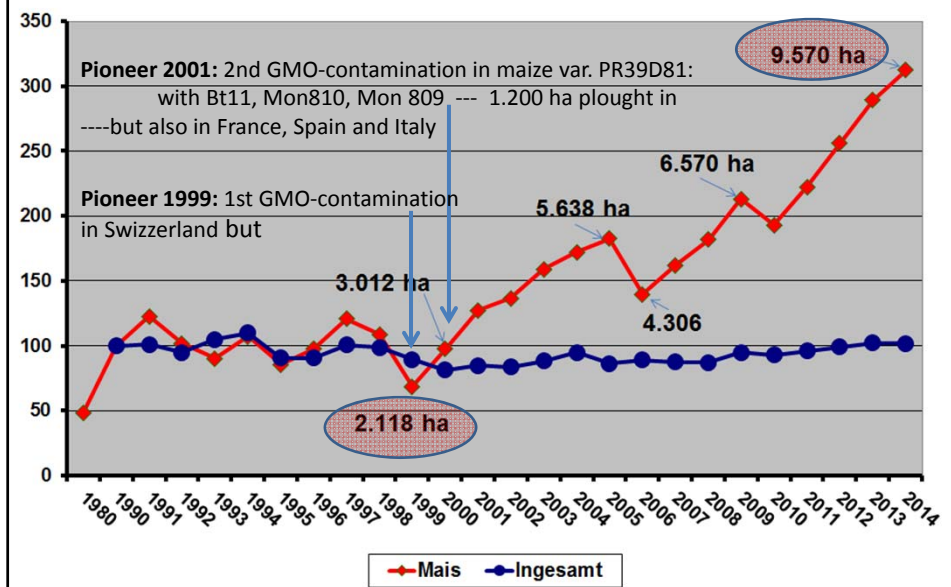
(Saatgut-Gentechnik-Verordnung, [BGBl. II Nr. 478/2001](#)).....has been passed by the Minister for Agriculture and prescribes a mandatory labelling for all genetically modified seed varieties covered by Directive 90/220/EEC.

It defines zero-GM-contamination as a statistical likelihood. In this respect the ordinance sets up thresholds for accidental contamination of conventional seed with genetically modified seed:

Only if no contamination has been detected at all levels of seed production the company is allowed to put the seeds in the market. If in a second controlling test by the seed authority traces of GMO below a 0,1% threshold are found, batches are taken either out of production and/or the company has to take prescribed measures – and at last stage only those patches or subunits are accepted which are free of GMOs.

 **re-start of the Austrian maize
seed production – a great success!**

maize seed production in Austria in relation to all seed production – relative since 1990(AGES)



You should be economically innovative -
this means:
to create a new business is quite important!

But... we are still dependent on the
monopolistic structure of global
maize-breeding companies

- at the same time there are some successes in local breeding of maize hybrids

Maize Breeders and seed producers in Austria

Breeder and/or marketer:

Pioneer Hi-Bred Northern Europe Sales Division GmbH

Austria - Parndorf

RAGT Saaten Österreich GmbH (French Agro-Coop) - Amstetten

KWS AUSTRIA SAAT GMBH – Wien

(Syngenta – selling seeds in Austria: ab. 8-10 varieties)


Saatzucht Gleisdorf Ges.mbH – traditional Austrian hybrid breeding company (till 1987 – restart in Austria since the 90ies – today about 20 new hybrid varieties.

Breeder, producer and marketer:

Saatbau Linz (Gen.): propagating and producing varieties of Syngenta- und Dekalb (Monsanto) – ab. 30 own breeding lines e.g.: Danubio (now Nr. 10 in Europe as seed producer)

Only producers and marketer:

DieSAAT (RWA Raiffeisen Ware Austria Handel und Vermögensverwaltung eGen) – propagating and selling mainly also for Dekalb und Limagrain



AGRA
STÄRKE GMBH

Sortenliste für gentechnikfreie Bioproduktion 2015

Organic variety list:

Breeders, producers and marketers of seeds for the organic maize-starch production in Austria

- only two Austrian breeding lines

Sorte	Züchter	Vertrieb	Reifezahl
Amanatidis	KWS	KWS	230
DKC 2971	Monsanto	Die Saat	240
LG 30215	Limagrain	Die Saat	250
Danubio	Saatbau Linz	Saatbau Linz	270
LG 32.58	Limagrain	Die Saat	280
P8523	Pioneer	Pioneer	290
Die Samba (DKC 3711)	Monsanto	Die Saat	290
Ronaklino	KWS	KWS	290
Die Samanta (DK 391)	Monsanto	Die Saat	320
Die Santana (DKC3623)	Monsanto	Die Saat	320
PR38A79	Pioneer	Pioneer	320
Alegro (DKC4025)	Monsanto	Saatbau Linz	340
Apollo (DKC4117)	Monsanto	Saatbau Linz	340
Chapalu	Eurals	Die Saat	350
Die Silvia (DKC 4522)	Monsanto	Die Saat	370
Die Sandra (DKC 4964)	Monsanto	Die Saat	380
Die Sonja (DKC 4717)	Monsanto	Die Saat	380
P9241	Pioneer	Pioneer	380
Futurixx	RAGT	Die Saat	390
Erlaubt aufgrund Ausnahmeregelung für gentechnikfreie Bioproduktion			
NK Falkone	Saatbau Linz	Saatbau Linz	250

And we have got a lot of testing and controlling costs in staying GMO-free in seeds

Just an example:

to some extent GMO-contamination is “self-perpetuating” (Chr. Then)

GMO-problems in Austrian seed-production at levels of breeding, import, production			
season	authorisation level – auditing quality tests of plant varieties	Import (EU and others)	multiplication – production - level
2013/14	P8400 (A) pos. 35s-prom <0,1% Mais-59122 (DAS-59122-7)	-	PH165C (F) pos. 35s-prom – measures taken 2nd test negativ parent line <0,1% Mais-MON810 (MON-00810-6) in production: 1 out of 17 batch had to be withdrawn
2012/13	P9308 (A) pos. 35s-prom <0,1% Mais-59122 (DAS-59122-7)	MAS 31R (F) 35s-prom <0,1% Mais-59122	-
2011/12	P9000 (A) pos. 35s-prom. <0,1% NK603 DNA + P9494 (A) pos. 35s-prom <0,1% Mon810 DNA	-	Authorization of a Soybean var. (Canada) DH618 (Can.) 35s-prom <0,1% Mon40-3-2 - was withdrawn
2010/11	P9494 (F) pos. 35s-prom. <0,12% NK603 retrieved and disposed of + Essor (soybean - A) 35s-prom <0,1% MON40-3-2 (RRS)	-	X85A580 (USA) pos. on BT11 20,4 t out of 50,4 t had to be withdrawn and disposed of + NK Borago (chile) pos. MON810 measures taken – o.k. + Flavia (Soy – Austr.) pos. <0,1% MON40-3-2 (Roundup Ready-Soja) measures taken – o.k.
2009/10	PR38A79 (A) pos. 35s-prom. <0,1% NK603 DNA + P9000 (A) pos. 35s-prom. <0,1% NK603 DNA	Crispi (F) pos. <0,1% Mon810 DNA	Essor (soybean – Can.) 35s-prom <0,1% MON40-3-2 (Roundup Ready-Soja) measures taken – o.k.
2008/9	PR38A79 (A) pos. 35s-prom. <0,1% NK603 DNA	Cultura (F) Crispi (F) pos. 2-times Bergxon (F) <0,1% MON810 + + Scaliff (Huma)	PR38V31 (A) <0,1% MON810 measures taken 40 t – no marketing P9400 3+ 20 t – no marketing + EGZ8207 (F) -retrieved + Alma Ata (soy -Can.) <0,1% RRS – no marketing

AGES

**At the end we had
a huge market of
GMO-free labeled food:**

**Organic Food +
GMO-free conventional products**

**We still have to fight with
GMO-contamination
in food and feed!**

GMO-contamination in food and feed in Austria

Ergebnisse der Schwerpunktkaktionen für Mais und Soja

food

feed

Jahr	Probenanzahl	Soja	Mais	Soja und Mais	negativ	positiv	davon über dem Kennzeichnungsschwellenwert	Bestandungen bezüglich Gentechnik
2001	153	59	54	40	144	9	4	2,6 %
2002	251	162	61	28	222	29	1	0,4 %
2003	250	141	102	7	192	49	1	0,4 %
2004	241	145	87	9	233	8	2	0,8 %
2005	242	140	96	6	237	5	0	0,0 %
2006	249	148	101	0	249	0	0	0,0 %

year	Samples feed	positive above 0,9 %	Non auth. special info
2004	196	15	
2005	164	10	
2006	197	14	
2007	292	15	
2008	277	15	
2009	353	9	
2010	306	17	2 Linseed + Non-auth. soy
2011	?	?	
2012	?	?	
2013	479	16	

Anm.: Seit dem 18. April 2004 gilt der Kennzeichnungsschwellenwert 0,9 % (zuvor 1 %).

year	samples	Soy	maize	rice	papaya	Others	Neg.	positiv	Above the threshold and/or illegal
2013	276	58	52	104	32*		244	1 (in 10 traces)	1 (papaya)
2012	262	65	75	73	49		236	0 (in 26 traces)	
2011	246	78	93	75*	-		214	1 (in 32 traces)	1 (rice Bt63)
2010	210	82	41	36		45 + 6 (linseed)	207	3	3 (linseed)

Source: AGES, BMG

Official controls on feed – what? – quite crucial is



EU - Regulation No 619/219

LLP (low level presence)

- of GMO
- with valid applications
- expired authorisations

- 0,1% Toleranz

- 12 „pending“ GVOs
- 1 „expired“ GVOs (u.a. Mais Bt176)

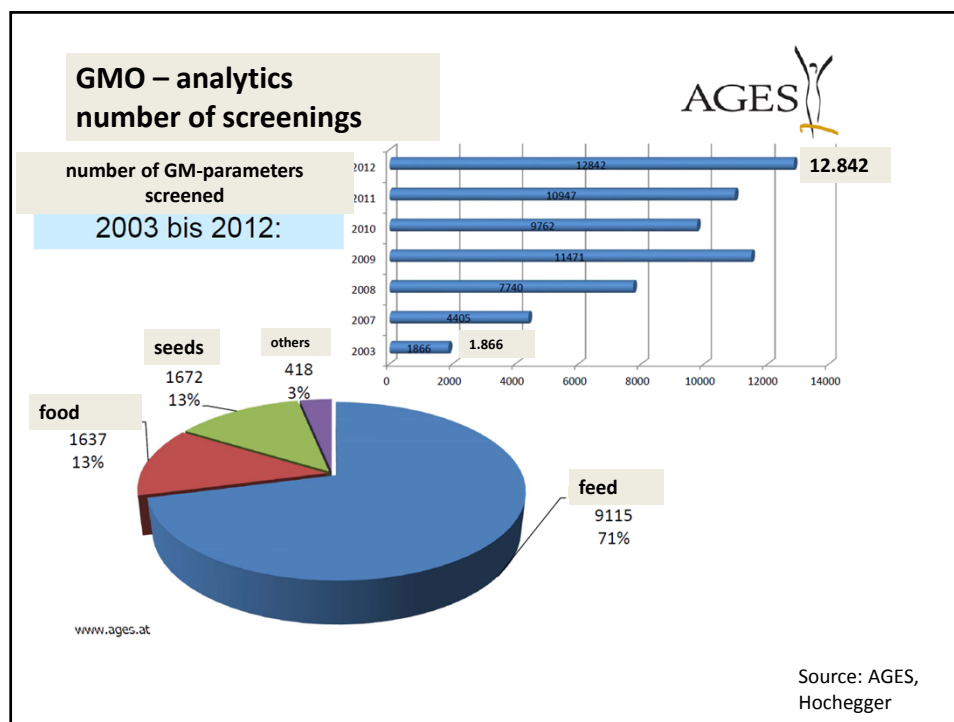
Name of the product	Unique Identifier	EFSA Application Number	Date of valid EFSA application or opinion published
RIE63 Beyer CropScience	ACS-05005-5	EFSA-GMO-UK-2004-04	EFSA Opinion Published 30/11/2007
1 maize Syngenta	SVN-E1277-5	EFSA-GMO-UK-2006-14	Valid EFSA application 6/07/2007
305423 soybean High Oleic soybean GM F402-1	DP-305423-1	EFSA-GMO-NL-2007-45	Valid EFSA application 22/10/2007
90140 maize GAT maize Pioneer	DP-090140-6	EFSA-GMO-UK-2008-53	Valid EFSA application 12/11/2008
FG72 soyabean Bayer CropScience AG	MOI-F0372-2	EFSA-GMO-UK-2011-98	Valid EFSA application 28/02/2011
BPS-CV127-9 soyabean BASF	BPS-CV127-9	EFSA-GMO-NL-2009-64	Valid EFSA application 13/07/2009
MON8913 Cotton Monsanto	MON-8913-8	EFSA-GMO-UK-2007-41	Valid EFSA application 19/10/2007
MON15983 Cotton Monsanto	MON-15983-7	EFSA-GMO-UK-2008-57	Valid EFSA application 20/08/2008
GM cotton GHB119 Bayer CropScience AG	BCS-04005-8	EFSA-GMO-NL-2011-96	Valid EFSA application 21/11/2011
BT 176 Maize Syngenta Crop Protection AG	SVN-E1175-9	Decisions to grant consent: 02/393/EC, Official Journal L 364, 0.30. '09 - 21/04/1997.	Not applicable
MON 87450 maize Monsanto	MON-87450-4	EFSA-GMO-NL-2009-70	Valid EFSA application 28/01/2010
DAS-40278-9 maize Dow AgroSciences	DAS-40278-9	EFSA-GMO-NL-2011-89	Valid EFSA application 11/07/2011
T301-10 cotton Bayer CropScience AG	BCS-04001-7	EFSA-GMO-NL-2011-97	Valid EFSA application 24/10/2011

www.ages.at

http://ec.europa.eu/food/dyna/gm_register/index_en.cfm

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Source: AGES, Hoehegger



If you have got an economically relevant market share

- This means , you are not any more a nish-market

AND

if the contamination level is a systematic one and occuring regularly

AND

if you can't solve this at political level

then you have a problem with absolute zero tolerance level!

We tried to find an answer with the “**Ordinance on**

Genetically Modified Seed” - (Saatgut-Gentechnik-Verordnung, [BGBl. II Nr. 478/2001](#)) – **with a relativ ‘zero’ – tolerance level**

But a prerequisite was and is: All the partners (also the seed companies) wanted to solve the problem.

We have no answer, if a partner within the system - like the seed industry – doesn't want to get rid of the GMO-contamination?