



Kompetenz rund um die Frucht

Assemblée Générale de l'AREFLH

Murcia, le 29 février 2008

**Attentes et exigences des distributeurs,
inquiétudes des consommateurs en Allemagne et en Europe**

**Retailers' Expectations and Requirements,
Consumers' Concerns in Germany and in Europe**

Wolfgang Ahlers, ATLANTA Aktiengesellschaft, Bremen, Germany



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Atlanta Group in Facts and Figures:

app. 1,000 employees

15 affiliates in Germany and Austria

1.5 billion € annual turnover

One of Europe's largest fruit
importers and wholesalers

Direct Sourcing

Direct Fruit Marketing DFM GmbH

DFM España, DFM Italia, DFM Brazil

Area-wide market coverage in
Germany and Austria





Kompetenz rund um die Frucht

Retailers' Expectations and Requirements, Consumers' Concerns in Germany and in Europe

Consumers' Concerns ?

„Fruit and vegetables are good for your health“

„Fruit and vegetables are good for your children“

„An apple a day keeps the doctor away“



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Consumers' Concerns ?



**Stop poison
in your food!**





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Consumers' Concerns ?



Oekotest Magazine 12/2007 on Clementines:

„Consumers should refrain from conventionally produced clementines, because this fruit is heavily loaded with pesticide residues.“

Fact: 35 of 36 samples met German MRL's





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Consumers' Concerns !

Consumers' Perception:

Fruit & vegetables are heavily loaded with pesticides

Fruit & vegetables may be harmful to my health

Fruit & vegetables may be harmful to my childrens' health

Growers and traders are unscrupulous

Our laws do not protect us properly

Consumers' Concerns

NGO and media campaigns

mostly in Germany and Austria

less in Denmark, Sweden and the Netherlands

not reported from other EU Member States



Retailers' Concerns



Greenpeace Ranking Food & Vegetables 2007







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Retailers' Concerns

Oekotest Magazine on Clementines (December 2007)

TESTTABELLE	Aldi Nord	Aldi Süd	Edeka	Lidl
				
Anbieter	Coop. Agricola de Gandia / Castell Fruits, S.L. / Agrod'Elx S. Coop.	Agrod'Elx S. Coop. / Gebrüder Bratzler / Solsafor	Agrofruit Export / 2 x Bollo Int. Fruits	Fruxeresa / Coop. Carlet / Frutas Victorietas
Herkunftsland	3 x Spanien	Spanien / Uruguay / Spanien	3 x Spanien	3 x Spanien
Belastung mit Pestiziden und / oder Schalenbehandlungsmitteln	2 x stark erhöht, 2 x erhöht / 1 x erhöht / 3 x erhöht	1 x über Höchstmenge, 1 x stark erhöht, 1 x erhöht / 1 x erhöht / 1 x erhöht	1 x erhöht / 2 x erhöht / 1 x über ARFD- Wert, 2 x erhöht	5 x erhöht / 1 x stark erhöht / 2 x erhöht
Gesamturteil	ungenügend	ungenügend	ungenügend	ungenügend

„unsatisfactory“



Retailers' Concerns



**Pestizidreport
Nordrhein-Westfalen**
Aktueller Stand: 22.02.2008



Lebensmittel



Tafelweintraube weiß

White Table Grapes

Probenübersicht 2005 - 2008	Proben untersucht	davon			
		ohne Pestizidbefund	mit Pestizidbefund	mit Mehrfachrückständen	mit Höchstmengenüberschreitung

Ländervergleich 2005 - 2008

	Italien	179	23	13%	156	87%	129	72%	2-16	10	6%
	Chile	69	8	12%	61	88%	44	64%	2-8	3	4%
	Türkei	57	7	12%	50	88%	45	79%	2-15	11	19%
	Südafrika	55	23	42%	32	58%	18	33%	2-7	0	0%
	Griechenland	50	17	34%	33	66%	28	56%	2-9	2	4%
	Brasilien	30	15	50%	15	50%	7	23%	2-4	0	0%
	Argentinien	27	16	59%	11	41%	3	11%	2-3	0	0%
	Spanien	20	7	35%	13	65%	9	45%	2-8	4	20%



Retailers' Concerns



**Pestizidreport
Nordrhein-Westfalen**
Aktueller Stand: 22.02.2008



Lebensmittel



Tafelweintraube weiß

White Table Grapes

Handelsketten-Übersicht 2005 - 2008 (ab jeweils 10 Proben)		Proben untersucht	davon								
			ohne Pestizidbefund		mit Pestizidbefund		mit Mehrfach- rückständen		mit Höchstmengen- überschreitung		
	Aldi	48	15	31%	33	69%	29	60%	2-12	1	2%
	Edeka	31	8	26%	23	74%	17	55%	2-15	1	3%
	Extra	10	4	40%	6	60%	5	50%	2-13	2	20%
	Kaisers	17	4	24%	13	76%	11	65%	2-8	2	12%
	Lidl	34	7	21%	27	79%	25	74%	2-13	1	3%
	Metro	10	2	20%	8	80%	7	70%	2-12	0	0%
	Penny	10	1	10%	9	90%	8	80%	3-9	2	20%
	Plus	36	6	17%	30	83%	22	61%	2-11	3	8%
	Real	19	3	16%	16	84%	14	74%	2-12	1	5%
	Rewe	29	3	10%	26	90%	15	52%	2-12	0	0%



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Kompetenz rund um die Frucht

Pesticides Detected

No Pesticides Detected

MRL Exceeded

Retailers' Concerns



**Pestizidreport
Nordrhein-Westfalen**
Aktueller Stand: 22.02.2008



Lebensmittel



Tafelweintraupe weiß

White Table Grapes

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Kompetenz rund um die Frucht

Retailers' Concerns

Pesticides Detected

No Pesticides Detected


Multiple Residues











MRL Exceeded



**Pestizidreport
Nordrhein-Westfalen**
Aktueller Stand: 22.02.2008



Lebensmittel	
 Tafelweintraupe weiß	White Table Grapes

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Retailers' Concerns

Retailers have to protect their brands

**„Food scandals“ and media campaigns
hit the retailers in first place,
not the growers or the importers**

Retailers' Expectations

**Growers must guarantee that goods
have been produced in accordance to GAP**

**Traders must evaluate their suppliers' quality
and ban all suppliers that fail to meet
retailers' expectations**

Major Topics

- 1. Maximum Residue Levels (MRL's)**
- 2. Multiple Residues („Pesticide Cocktails“)**
- 3. Acute Reference Dose (ARfD)**



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Maximum Residue Levels

In the EU, residue law is still national law

Harmonization not earlier than September 2008

In Germany, German MRL's have to be met

Import tolerances („Allgemeinverfuegungen“)

Assessment values („Beurteilungswerte“)



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Maximum Residue Levels

MRL's are no toxic limits

MRL's are not set higher than 1% of the NOAEFL

MRL's never exceed GAP requirements

**Residues can be incorporated every day of life
without any harm to health**



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Multiple Residues

No scientific evidence for potentiating effects

Several crops need more than one application

GAP requires to change substances

Legislation does accept more than one residue



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Acute Reference Dose (ARfD)

Definition:

The maximum amount of substance which can be incorporated in one meal or during one day

Source:

Experimental studies, carried out by the WHO and (in Germany) by the Federal Institute for Risk Assessment (BfR)

Acute Reference Dose (ARfD)

Calculation Model:

**Based on the „most vulnerable consumer“,
a 5 year old girl with 16.15 kg body weight**



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Acute Reference Dose (ARfD)

Legal Quality:

**ARfD is not directly laid down by law
Values are being published on the Internet**

But:

**ARfD exceedances can give an indication
that food is „unsafe“ according to article 14
General Food Law (regulation (EC) no. 178/2002)**

Acute Reference Dose (ARfD)

Problem:

**In several cases, the ARfD is exceeded,
even if the MRL is met**



Acute Reference Dose (ARfD)

MRL met, but ARfD exceeded

Incompatible MRL's - Table Grapes				
Substance	MRL	ARfD		ARfD (HR) in %
Formetanat	1,00 mg/kg	0,0050	mg/kg BW	1.309,60
Procymidon	5,00 mg/kg	0,0350	mg/kg BW	935,4
Dinocap	0,50 mg/kg	0,0040	mg/kg BW	818,5
Vinclozolin	5,00 mg/kg	0,0600	mg/kg BW	545,7
Fentin	0,05 mg/kg	0,0010	mg/kg BW	327,4
Pyrazophos	0,05 mg/kg	0,0010	mg/kg BW	327,4
Endosulfan	0,50 mg/kg	0,0150	mg/kg BW	218,3
Pyraclostrobin	1,00 mg/kg	0,0300	mg/kg BW	218,3



Acute Reference Dose (ARfD)

MRL met, but ARfD exceeded

Incompatible MRL's - Citrus Fruit				
Substance	MRL	ARfD		ARfD (HR) in %
Formetanat	4,00 mg/kg	0,0050	mg/kg BW	8.266,5
Fenthion	3,00 mg/kg	0,0100	mg/kg BW	3.099,9
Methidathion	2,00 mg/kg	0,0100	mg/kg BW	2.066,6
Methomyl	0,50 mg/kg	0,0025	mg/kg BW	2.066,6
Guazatin	5,00 mg/kg	0,0560	mg/kg BW	922,6
Fentin	0,05 mg/kg	0,0010	mg/kg BW	516,7
Pyrazophos	0,05 mg/kg	0,0010	mg/kg BW	516,7
Carbofuran	0,30 mg/kg	0,0090	mg/kg BW	344,4
Pyraclostrobin	1,00 mg/kg	0,0300	mg/kg BW	344,4
Bromid	30,00 mg/kg	1,0000	mg/kg BW	310,0



Acute Reference Dose (ARfD)

MRL met, but ARfD exceeded

Incompatible MRL's - Pome Fruit				
Substance	MRL	ARfD		ARfD (HR) in %
Formetanat	1,00 mg/kg	0,0050	mg/kg BW	2035,4
Imazalil	5,00 mg/kg	0,0500	mg/kg BW	1017,7
Methomyl	0,20 mg/kg	0,0025	mg/kg BW	814,2
Fentin	0,05 mg/kg	0,0010	mg/kg BW	508,9
Fluquinconazol	1,00 mg/kg	0,0200	mg/kg BW	508,9
Pyrazophos	0,05 mg/kg	0,0010	mg/kg BW	508,9
Phosmet	2,00 mg/kg	0,0450	mg/kg BW	452,3
Flusilazol	0,20 mg/kg	0,0050	mg/kg BW	407,1
Azafenidin	0,01 mg/kg	0,0004	mg/kg BW	254,4
Dinocap	0,10 mg/kg	0,0040	mg/kg BW	254,4
Fenpyroximat	0,50 mg/kg	0,0200	mg/kg BW	254,4



Acute Reference Dose (ARfD)

MRL met, but ARfD exceeded

Incompatible MRL's - Strawberries				
Substance	MRL	ARfD		ARfD (HR) in %
Formetanat	1,00 mg/kg	0,0050	mg/kg BW	311,8
Procymidon	5,00 mg/kg	0,0350	mg/kg BW	222,7
Lambda-Cyhalothrin	0,50 mg/kg	0,0075	mg/kg BW	103,9

Acute Reference Dose (ARfD)

„ARfD-critical“ substances should be used very carefully and in low doses

Inspection labs and agricultural consultants should consider ARfD values in line with MRL's

Major Topics

- 1. Maximum Residue Levels (MRL's)**
- 2. Multiple Residues („Pesticide Cocktails“)**
- 3. Acute Reference Dose (ARfD)**

... and how retailers tackle them



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Retailers' Requirements

ALDI Specifications

- 1. max. number of detectable substances (3-5)**
- 2. max. 70% of each specific MRL**
- 3. max. 80% of the cumulated MRL's**
- 4. max. 80% of each specific ARfD**
- 5. max. 80% of the cumulated ARfD's**



Retailers' Requirements

ALDI

Oranges						
Substances	MRL	ARfD	Residues	Load	% MRL	% ARfD
	[mg/kg]	[mg/kg BW]	[mg/kg]	[mg/kg BW]		
Chlorpyrifos	0,30	0,1000	0,05	0,00517	16,67	5,17
Imazalil	5,00	0,0500	1,10	0,11366	22,00	227,32
Malathion, Malaoxon	2,00	2,0000	0,30	0,03100	15,00	1,55
Thiabendazol	5,00	0,3000	1,10	0,11366	22,00	37,89
Summenwerte					75,67	271,93



Retailers' Requirements

ALDI

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Retailers' Requirements

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Oranges						
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	[mg/kg]	[mg/kg BW]	[mg/kg]	[mg/kg BW]		
Chlorpyrifos	0,30	0,1000	0,05	0,00517	16,67	5,17
Imazalil (VF = 1)	5,00	0,0500	1,10	0,01624	22,00	32,48
Malathion, Malaoxon	2,00	2,0000	0,30	0,03100	15,00	1,55
Thiabendazol (VF = 1)	5,00	0,3000	1,10	0,01624	22,00	5,41
Summenwerte					75,67	44,61



Retailers' Requirements

ALDI

Oranges						
Substances	MRL	ARfD	Residues	Load	% MRL	% ARfD
	[mg/kg]	[mg/kg BW]	[mg/kg]	[mg/kg BW]		
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Thiabendazol (VF = 1)	5,00	0,3000	1,10	0,01624	22,00	5,41
Summenwerte					75,67	44,61

Max number of substances (4 for citrus fruit): ok

MRL: Max 70% per substance and max 80% per sum: ok

ARfD: Max 80% of ARfD: ok



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Retailers' Requirements

REWE / METRO / Tengelmann Specifications

- 1. max. 70% of each specific MRL**
- 2. max. 70% of each specific ARfD**

No maximum number of substances

No cumulation rules



Retailers' Requirements

REWE / METRO / Tengelmann

Oranges						
Substances	MRL	ARfD	Residues	Load	% MRL	% ARfD
	[mg/kg]	[mg/kg BW]	[mg/kg]	[mg/kg BW]		
Chlorpyrifos	0,30	0,1000	0,05	0,00517	16,67	5,17
Imazalil (VF = 1)	5,00	0,0500	1,10	0,01624	22,00	32,48
Malathion, Malaoxon	2,00	2,0000	0,30	0,03100	15,00	1,55
Thiabendazol (VF = 1)	5,00	0,3000	1,10	0,01624	22,00	5,41
Summenwerte					75,67	44,61

MRL: Max 70% per substance: ok

ARfD: Max 70% per substance: ok



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Retailers' Requirements

LIDL / Kaufland Specifications

- 1. max. one third of each specific MRL**
- 2. max. 100% of cumulated ARfD values**

No maximum number of substances



Retailers' Requirements

LIDL / Kaufland

Oranges						
Substances	MRL	ARfD	Residues	Load	% MRL	% ARfD
	[mg/kg]	[mg/kg BW]	[mg/kg]	[mg/kg BW]		
Chlorpyrifos	0,30	0,1000	0,05	0,00517	16,67	5,17
Imazalil (VF = 1)	5,00	0,0500	1,10	0,01624	22,00	32,48
Malathion, Malaoxon	2,00	2,0000	0,30	0,03100	15,00	1,55
Thiabendazol (VF = 1)	5,00	0,3000	1,10	0,01624	22,00	5,41
Summenwerte					75,67	44,61

MRL: Max one third per substance: ok

ARfD: Max 100% in cumulation: ok

Retailers' Requirements

- **are stricter than legal rules**
- **are more extensive than legal rules**
- **are not always in line with GAP**

- **but can be contractually enforced**

Retailers' Requirements

- **are just a means to avoid public trouble**
- **can be achieved by „real good“ GAP**
- **can help to restore consumers' confidence**



Kompetenz rund um die Frucht

Vielen Dank für Ihre Aufmerksamkeit !

Thank you very much for your attention !

Merci beaucoup, muchas gracias, tante grazie !