



# Introduction

## Primary, secondary and voluntary standards



Primary, legally binding standards	Secondary standards	Voluntary standards
<p style="text-align: center;"><b>Legislation</b></p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <div style="display: flex; justify-content: space-around; align-items: center;">  <p>Food and Agriculture Organization of the United Nations</p> </div>	<p style="text-align: center;"><b>Food Chain Companies</b></p> <div style="display: flex; justify-content: space-around; align-items: center;">    </div>	<p style="text-align: center;"><b>Certification Systems</b></p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <div style="display: flex; justify-content: space-around; align-items: center;">  <p>Roundtable on Sustainable Palm Oil</p> </div> <p style="text-align: center;">▪ ▪ ▪</p>
<p><b>Science based assessment</b> of pesticide MRLs to safeguard consumer health and promote Good Agricultural Practices.</p>	<p><b>Individual</b> requirements focused on <b>residues</b> (number, percentage of MRLs, red list)</p> <p>“Although voluntary by essence, secondary standards lead to situations where a grower is <b>de facto forced</b> to comply with these requirements in order to sell its products.”                      ECPA 2010</p>	<p>Detailed requirements for <b>Good Agricultural Practices</b> and <b>red list</b> of actives</p>

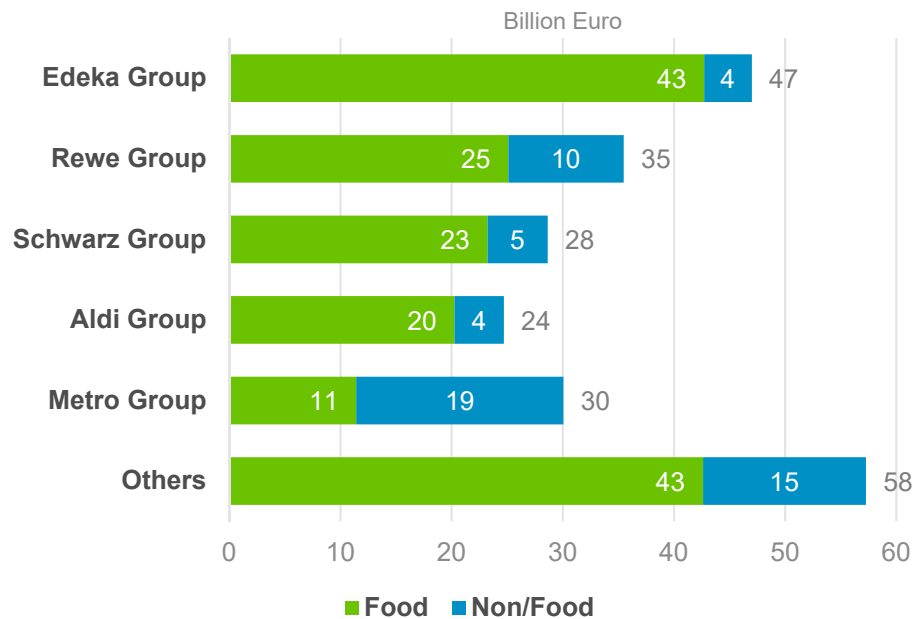
# Introduction

## Influencing Power of Secondary and Voluntary Standards



### Turnover by leading German food retailers

#### Retailers Turnover on German market (2012)

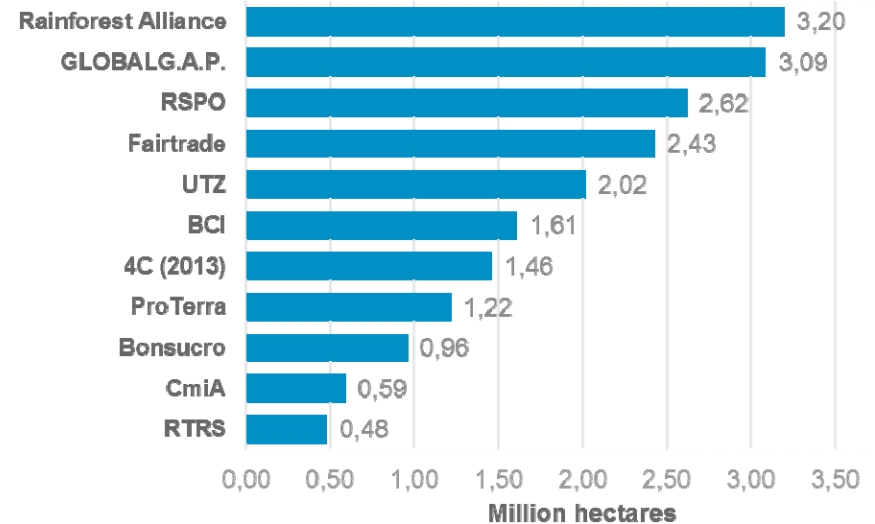


**Strong and concentrated buying power!**

Source: Lebensmittelzeitung / Planet Retail March 2012

### Certification systems

#### Total certified area per VSS 2014, in million hectares













**Growing certified area!**

Source: GLOBALG.A.P. 2016

# Secondary Standards

## German Retailer Demands



Retailer	MRL per active compound	Max ARfD value per active compound	Max sum of ARfD values	Additional requirements
 	70%	-	80%	Different maximum number of active compounds per crop (3,4,5)
	70% 50% for 'Gärtners Beste'	100%	-	-
	70%	70%	100%	Manufacturing Restricted Substances List (MRSL) (Page 5)
	70%	70%	100%	-
	33.3%	100%	100%	-
	70%	70%	100%	-
	33.3%	100%	-	-
	70%	100%	-	Maximum 4 numbers of active compounds
	80%	80%	-	Maximum of 5 numbers of active compounds

Source: Roveg Fruit BV, Extra retailer demands version July 2014

# Regulation and control of HHP use

## Classification, Bans and Restrictions



### Introduction

Several agricultural standards have issued lists based on the Stockholm and Rotterdam Conventions and Montreal Protocol. The use of HHP in these lists is either prohibited or limited. In addition, some standards have set their own regulation.

	Focus	List
<b>Stockholm Conference</b>	<p><b>Persistent Organic Pollutants (POPs)</b></p> <p>Pesticides which remain intact in the environment for long periods and have harmful impacts on human health or on the environment.</p>	<p><a href="http://chm.pops.int/TheConvention/ThePOPs/ListingofPOPs/tabid/2509/Default.aspx">http://chm.pops.int/TheConvention/ThePOPs/ListingofPOPs/tabid/2509/Default.aspx</a></p>
<b>Rotterdam Conference</b>	<p><b>Prior Informed Consent (PIC) procedure</b></p> <p>Mechanism for formally obtaining and disseminating the decisions of importing parties about receiving future shipments of HHPs and for ensuring compliance with these decisions by exporting Parties.</p>	<p><a href="http://www.pic.int/TheConvention/Chemicals/AnnexIIIChemicals/tabid/1132/language/en-US/Default.aspx">http://www.pic.int/TheConvention/Chemicals/AnnexIIIChemicals/tabid/1132/language/en-US/Default.aspx</a></p>
<b>Montreal Protocol</b>	<p><b>Substances that Deplete the Ozone Layer</b></p> <p>Reduce the production and consumption of ozone depleting substances in order to reduce their abundance in the atmosphere</p>	<p><a href="http://ozone.unep.org/pdfs/Montreal-Protocol2000.pdf">http://ozone.unep.org/pdfs/Montreal-Protocol2000.pdf</a></p>
<b>World Health Organization (WHO)</b>	<p><b>Classification of Pesticides by Hazard</b></p> <p>The WHO provides a reference list including: Extremely Hazardous Pesticides (1a) and Highly Hazardous Pesticides (1b), Moderately hazardous (2), Slightly hazardous (3), Unlikely to present acute hazard (U).</p>	<p><a href="http://www.who.int/ipcs/publications/pesticides_hazard_2009.pdf">http://www.who.int/ipcs/publications/pesticides_hazard_2009.pdf</a></p>

# Voluntary Standards Certification Systems – ISEAL Alliance



Members



- Non-governmental organisation whose mission is to **strengthen sustainability standards systems**
- The organization has a **working group dedicated to HHP** and most of its full members have committed to the reduction of use of these pesticides.

### *Pesticides Commitment (Nov 2015):*

- **Overall goal:** to ensure that producers certified by ISEAL members are not using the worst of these HHPs included in the Stockholm Convention, Rotterdam Convention and Montréal Protocol.
- **Participants:** 4C Association, Bonsucro, FairTrade International, Sustainable Agricultural Network, UTZ, and Roundtable on Sustainable Biomaterials.
- For more information:  
[http://www.isealalliance.org/sites/default/files/ISEAL%20\\_members\\_Pesticides\\_commitments\\_letter.pdf](http://www.isealalliance.org/sites/default/files/ISEAL%20_members_Pesticides_commitments_letter.pdf)

### *Integrated Pest Management Coalition Partnership (May 2016):*

- **Overall goal:** to reduce or eliminate the use of HHP and to achieve a significant reduction of pesticide risks to health and the environment with effective standard and certification systems' tools.
- **Participants:** Better Cotton Initiative, Bonsucro, Fairtrade International, Global Coffee Platform, Golf Environment Organization, Roundtable on Sustainable Biomaterials, Sustainable Agriculture Network and UTZ.
- For more information:  
<http://www.isealalliance.org/sites/default/files/private/ISEAL%20Pesticides%20Agreement%20May%202016.pdf>

# Voluntary Standards

## Overview by Certification Scheme (Top 11)





	Stockholm Convention	Rotterdam Convention	Montreal Protocol	WHO 1a and 1b	Banned Crop Protection Product List
<b>Rainforest Alliance</b>	X	X	X		99 substances <a href="http://www.san.ag/biblioteca/docs/SAN-S-2-1_Prohibited_Pesticide_List.pdf">http://www.san.ag/biblioteca/docs/SAN-S-2-1_Prohibited_Pesticide_List.pdf</a> *a new protocol and list of banned substances will be published in September 2016
<b>GLOBALG.A.P.</b>					
<b>RSPO</b>	X	X		X	
<b>Fairtrade</b>	X	X		X	160 substances <a href="http://www.fairtrade.net/fileadmin/user_upload/content/2009/standards/documents/2014-05-15_EN_Prohibited_Materials_List.pdf">http://www.fairtrade.net/fileadmin/user_upload/content/2009/standards/documents/2014-05-15_EN_Prohibited_Materials_List.pdf</a>
<b>UTZ</b>	X	X			110 substances <a href="http://www.pcu-deutschland.de/sites/default/files/FL_062912115704_010612_EN_UTZ_List_of_banned_crop_protection_products_v1_2-clean.pdf">http://www.pcu-deutschland.de/sites/default/files/FL_062912115704_010612_EN_UTZ_List_of_banned_crop_protection_products_v1_2-clean.pdf</a>
<b>BCI</b>	X				
<b>4C</b>	X	X	X		178 substances <a href="http://www.globalcoffeeplatform.org/assets/files/Documents/New-Code-of-Conduct/4C_Code-of-Conduct_2.0.pdf">http://www.globalcoffeeplatform.org/assets/files/Documents/New-Code-of-Conduct/4C_Code-of-Conduct_2.0.pdf</a>
<b>Proterra</b>	X	X	X		
<b>Bonsucro</b>	X	X	X	X	
<b>CmiA</b>	X	X		X	92 substances <a href="http://www.cottonmadeinafrica.org/en/english-docs/cmia-standard-1/cmia-standards-documents/71-prohibited-pesticide-active-ingredients-1/file">http://www.cottonmadeinafrica.org/en/english-docs/cmia-standard-1/cmia-standards-documents/71-prohibited-pesticide-active-ingredients-1/file</a>
<b>RTRS</b>	X	X			

# Voluntary Standards by Certification Systems

## Examples: RSPO & Rainforest Alliance



	 <b>RSPO</b> Roundtable on Sustainable Palm Oil	 <b>Rainforest Alliance</b>
<b>Reference to legislation and specific regulation</b>	<ul style="list-style-type: none"> <li>• FAO International Code of Conduct</li> <li>• Stockholm Convention</li> <li>• Rotterdam Convention</li> <li>• WHO 1a and 1b</li> <li>• Further requirements: paraquat</li> </ul>	<ul style="list-style-type: none"> <li>• Banned products by U.S. EPA</li> <li>• Pesticides banned or severely restricted in the EU</li> <li>• Stockholm Convention</li> <li>• Rotterdam Convention</li> <li>• WHO 1a and 1b</li> <li>• Further restrictions: All Pesticide Action Network (PAN) Dirty Dozen substances, aldicarb, DBCP and paraquat</li> </ul>
<b>Additional requirements of the protocol (extract)</b>	<ul style="list-style-type: none"> <li>• Any use of pesticides shall be minimized. There shall be no prophylactic use of pesticides, except in specific situations identified in national Best Practice guidelines.</li> <li>• Measures to avoid the development of resistance (such as pesticide rotations) should be applied.</li> <li>• Pesticides shall only be handled, used or applied by persons who have completed the necessary training.</li> <li>• Application of pesticides shall be by proven methods that minimise risk and impacts.</li> <li>• Pesticides shall be applied aerially only where there is documented justification. Communities shall be informed of impending aerial pesticide applications.</li> <li>• No pesticide application by pregnant or breast-feeding women.</li> <li>• ...</li> </ul>	<ul style="list-style-type: none"> <li>• Personnel who apply or handle agrochemicals must have examinations to determine the potential effects of the agrochemicals before initiating activities. These workers must not suffer from chronic, respiratory or renal diseases nor have been declared mentally ill.</li> <li>• Application of pesticides by women is not permitted, as it generates high risks to their health and may affect their reproductive organs or their descendants. Only males between age 18 and 60 are permitted to apply agrochemicals.</li> <li>• On farms where workers are exposed to organophosphates or carbamate pesticides, the farm implements a cholinesterase monitoring program and establishes control measures.</li> <li>• ...</li> </ul>

Source: Roundtable on Sustainable Palm Oil (2016). URL: [www.rspo.org](http://www.rspo.org); Rainforest Alliance (2016). URL: <http://www.rainforest-alliance.org/>



# Voluntary Standards by Certification Systems

## Example: Field to Market



<p><b>Reference to legislation and specific regulations</b></p>	<ul style="list-style-type: none"> <li>• Voluntary program that utilizes metrics and benchmarks to collect data on current sustainability outcomes, catalyzing continuous improvement at the field and landscape level</li> </ul>
<p><b>Additional requirements of the protocol (extract)</b></p>	<ul style="list-style-type: none"> <li>• Utilizes a calculator for corn, cotton, rice, wheat, potatoes and soybean growers and allows growers to better understand and communicate how management choices affect overall sustainability performance and operational efficiency.</li> <li>• The Calculator estimates field level performance on the following sustainability indicators:             <ul style="list-style-type: none"> <li>• Land Use</li> <li>• Conservation</li> <li>• Soil Carbon</li> <li>• Irrigation Water Use</li> <li>• Water Quality</li> <li>• Energy Use</li> <li>• Greenhouse Gas Emissions</li> </ul> </li> </ul>

Source: Field to Market 2016. <https://www.fieldtomarket.org/resources/>

# Secondary Standards

## What's Next



Global KRM	
Rainforest Alliance	Ronald Guendel
GLOBALG.A.P.	Ronald Guendel
RSPO	Stefan Heinke
Fairtrade	Ronald Guendel
UTZ	Ronald Guendel
BCI	Tomas Zaborowski
4C	NN
ProTerra	NN
Bonsucro	Ronald Guendel
CmiA	NN
RTRS	Stefan Heinke

# Secondary Standards

## What's Next



### Challenges of Secondary Standards

- Myriad of requirements; onerous for growers to comply
- Growers may limit exports due to complexity
- Confusing to consumers – create unjustified fears
- Undermines existing good practices, do not improve consumer safety

### Opportunities

- Global Bayer team engaged on secondary standards
- Continued dialogue and education with downstream food chain



Science For A Better Life



Thank you!