



VI Slovak Plant Health Days

Advances In Agricultural plastics Recycling in Europe

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Today's presentation

- EPRO
- EPRO's WG on agricultural plastics
- Agricultural plastics in Europe: An overview
- EPR- schemes for agricultural plastics
- Conclusion



What is EPRO?

- EPRO, European Association of Plastics Recycling and Recovery Organisations
- Members have to give in their country guarantee on recycling of plastic packaging waste, and agri- plastics
- 19 members – 16 countries, open for new members, also outside Europe!
- Aim: To exchange experiences and thus optimise national effectiveness through international co-operation



www.epro-plasticsrecycling.org

EPRO's activities



Statistics



Certification



Award



ECO-Design

EPRO's WG on agricultural plastics



EPRO's WG on agricultural plastics



EPRO's WG on agricultural plastics



(Norway)



(Canada)



(Spain)



(Iceland)



(Germany)



AIVALOR

(France)

Six recovery schemes specialized in agricultural plastics from Europe and Canada

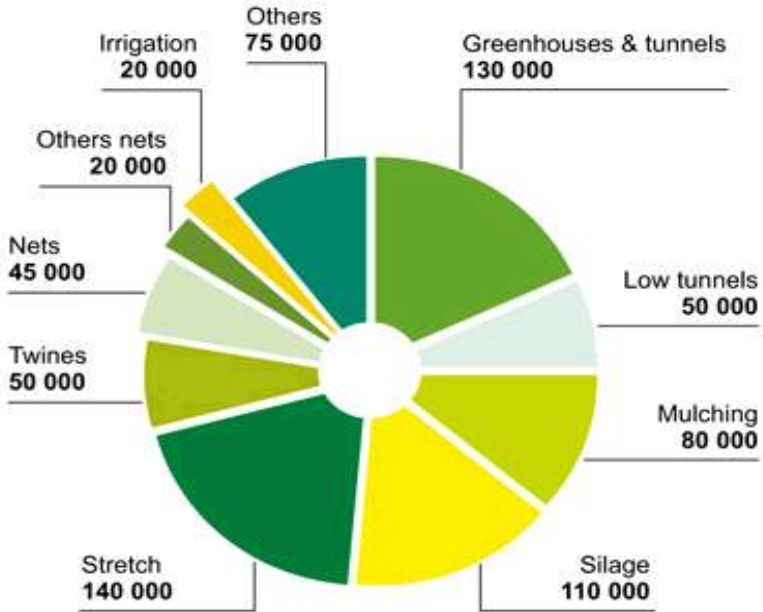
EPRO's WG on agricultural plastics

- **Technical expert group**
- **Develop and promote the „best practice case“**
- **Process optimization of schemes**
- **Support of new Initiatives**
- **Statistics on ag-plastics recycling**
- **Life + Project application**



Agricultural plastics an overview

Total agriplastics by category : 720 000 tons (Packaging excluded)



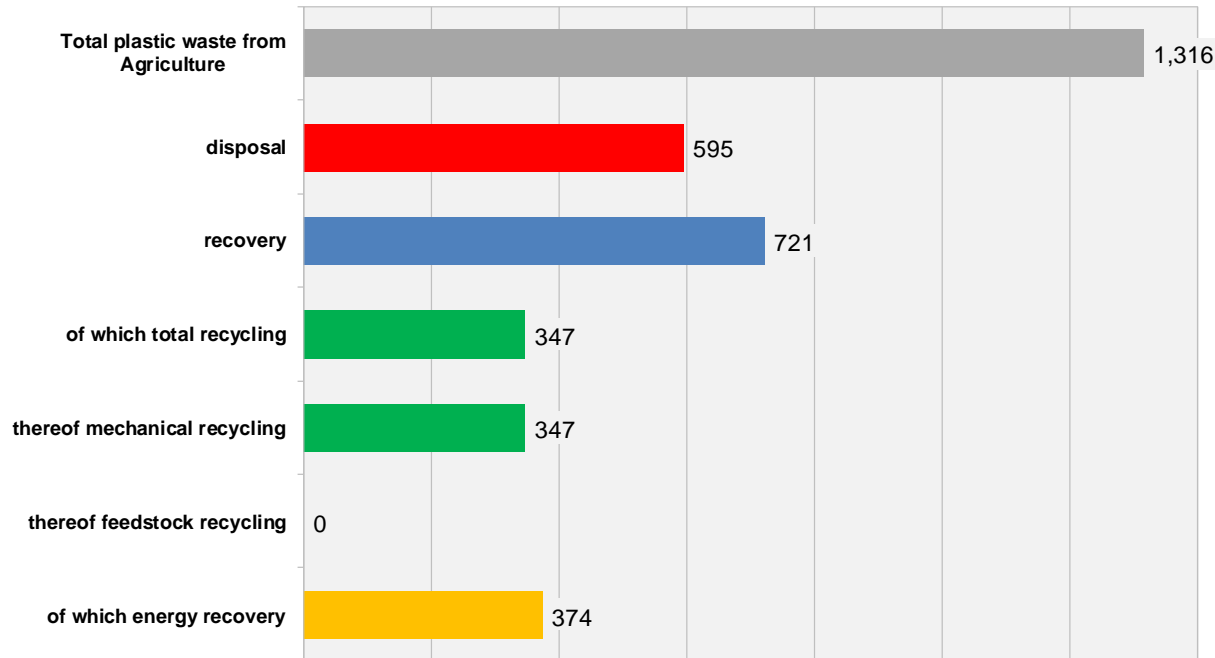
App. 500.000t are plastic film

Protect	Preserve	Reduce
Harvest & crops	Soils and crops humidity	Water
Product quality	Water table	Fertilisers
Nutritional qualities		Phytopharmaceutical
From insects, birds & pet		Production losses
From climatic variations		

Source: APE Europe

Agricultural plastics an overview

Treatment of total plastic waste from Agriculture 2012 in EU 27 + 2 (kt)



- 5% of total European plastic waste are ag-plastics
- Landfill rate 45,2 %
- Recycling rate 26,4% (22% in 2010)

Source: Consulitic 2013

Agricultural Plastics an overview

European legislation

- European Packaging Directive for **Ag-plastic packaging**
- No European Legislation for **non-packaging Ag- plastics**

But: National legislation

- Ban on landfill (e.g. Germany, Austria, Sweden)
- Take back obligation integrated in packaging legislation (Iceland)
- Special take back obligation for agricultural film (Ireland, Spain-Andalusia)
- Voluntary agreement on packaging and agricultural film (Norway)



Potential for the recycling of ag-film

-

- Used products have high pollution rates (e.g mulching films)
- Conviction of farmers to prepare the film has to be promoted
- Logistics and nationwide coverage are a challenge
- Landfill costs are low in some countries

+

- + Most products are disposed as monostreams
- + More than 70% of the products are out of PE
- + A “closed loop recycling” is possible
- + The number of agricultural film recyclers is growing, there is a demand for used films
- + New cleaning and pre-washing technologies increase the recycling of heavily soiled products (e.g. mulching films)
- + The demand for regranulates of ag-film is strong

EPR-schemes for agricultural film

EPRO-members



(NEW)



(NEW)



ADIVALOR



ÚRVINNSLUSJÓÐUR

Potential-members

APE UK

(NEW)

SVEP RETUR

SVENSK ENBILAGEPLAST RETUR AB



IRISH
FARM FILMS
PRODUCERS
GROUP LTD.

EPR-schemes for agricultural film

- **3 new schemes** have been installed due to the cooperation between APE Europe and EPRO
- All systems are specialized in agriculture
- Systems are financed by license fees by the industry
- Systems are based on a **national law** or pressure by the government (Ireland, Iceland, Spain)
- Others are based on **voluntary agreements** of the industry (Germany, France, UK)
- Schemes are based on the principle of shared responsibility

Results

Average collection rate in countries
with schemes 75%
(90% recycling rate on collected Vol.)

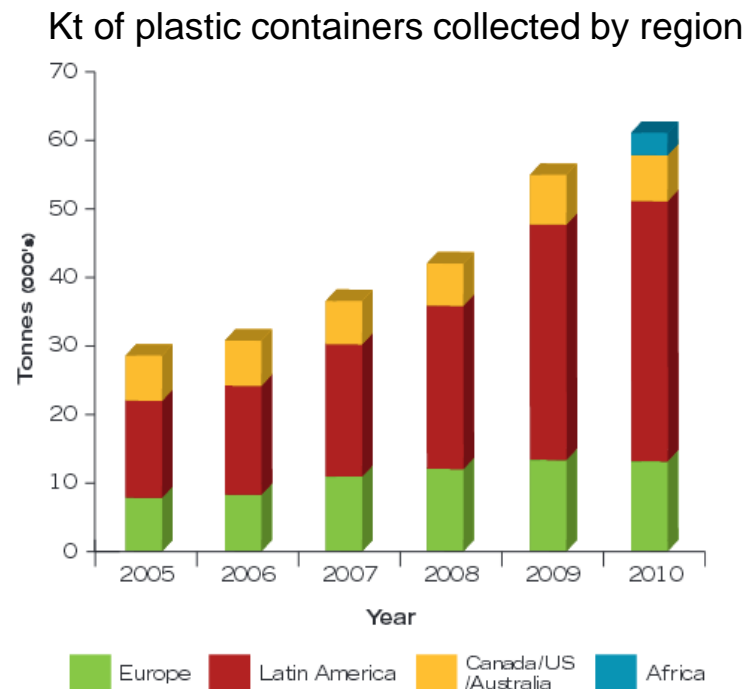
VS.

Average collection rate in countries
without NCS 30%
(50% recycling rate on collected Vol.)



EPR-schemes for pesticide packaging

The best waste management EPR-approach worldwide



*Source crop life int.

What have successful EPR-schemes in common ?

- **Owned by the industry**
- **Based on shared responsibility**
- **Knowledge:**
 - market of the product
 - value chain and stakeholders
 - enduser
- **Expertise:**
 - logistics and recycling
 - marketing and PR
 - legal aspects and industry politics



Link the players in the value chain: Producing industry, agricultural sector, waste management operators and recyclers

Conclusion

- EPRO will support the development of new schemes
 - Agricultural plastics are recyclable, if collected systematically
 - Countries with National Collection Schemes have better results in collecting and recycling rate
 - The pro active voluntary approach works
 - The plant protection industry is an excellent reference for „end of life“ management
- To advance agricultural plastics recovery and recycling, more EPR-schemes have to be developed

Thank you for your attention!!!

Perhaps...

we will meet again in Wiesbaden!?

4-6th of November

RIGK GmbH

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1st International
Recycling Forum
Agricultural Plastics – Potential for Recycling

4 – 6 November 2015
Dorint - Pallas - Wiesbaden
Germany

www.rigk.de/en/forum