



Agricultural plastics, pollution, and waste control management

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Plastic Pollution- Three sessions

At the end of these sessions, you will be able to:

1. Explain the issue of plastic pollution
2. Describe possible ways to avoid and reduce plastic pollution
3. Outline the regulations of plastic waste management



Agricultural plastics, pollution, and waste control management

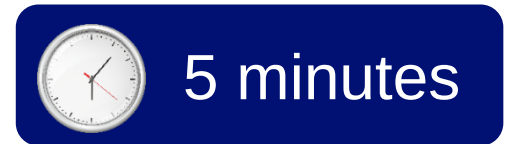
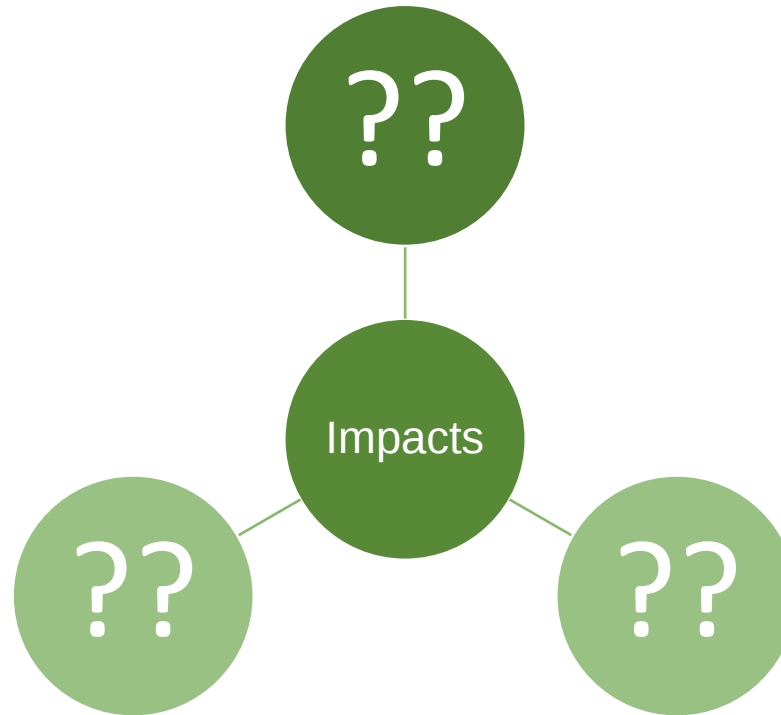
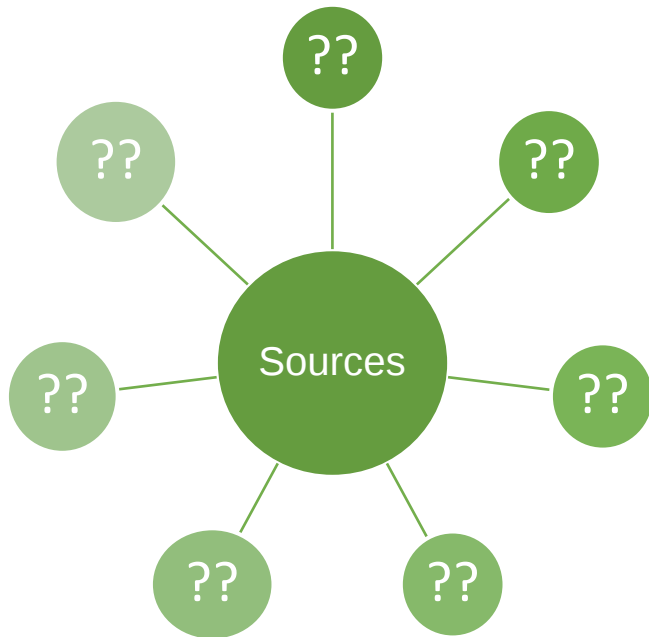
Plastic pollution: Session 2- How plastic is used and managed in agriculture

1. Describe how plastics have changed farming practice
2. Apply the waste hierarchy within the agriculture sector
3. Outline good plastic waste management and circular economy within agriculture



Agricultural plastics, pollution, and waste control management; RECAP

Spend 5 minutes remembering the sources and impacts of plastic pollution within agriculture discussed in session 1



How are these plastics getting into the natural world?

Buried



Windblown



Fly tipping



Spread



Mulch film

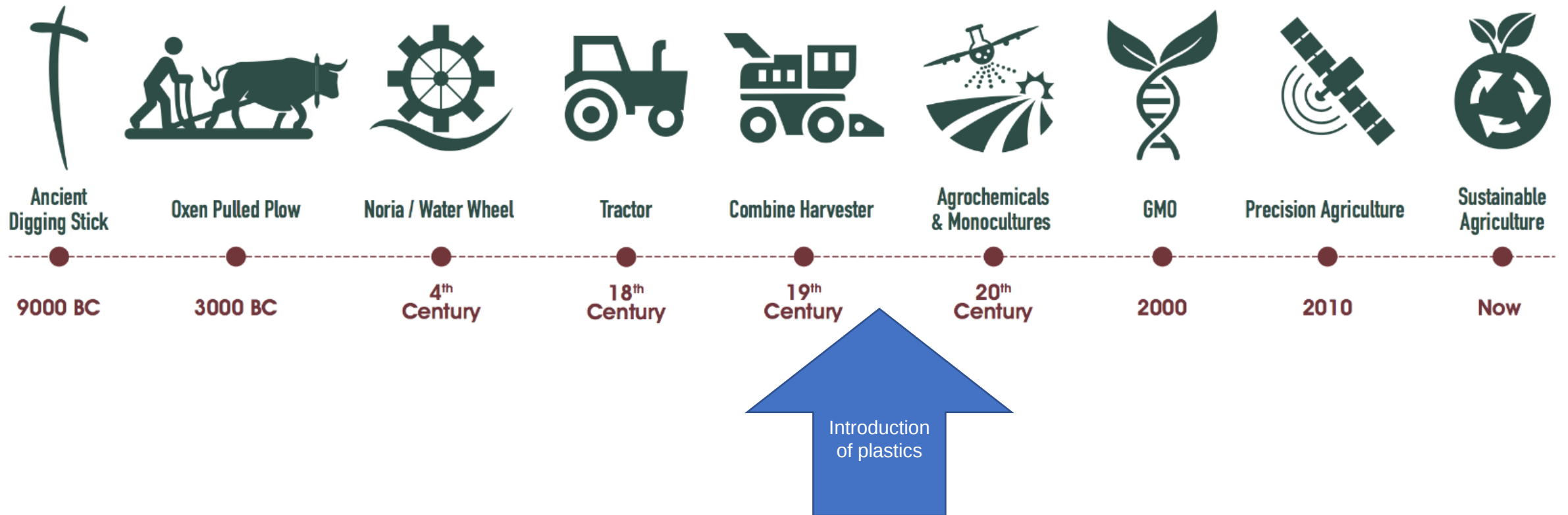


Burnt



Evolution of agriculture

What have plastics ever done for us?



Securing quality winter forage



Mechanisation and introduction of plastics



Modern grass silage production





Click on the image to hyperlink to YouTube

Consider the importance of virgin plastics in silage wraps and the sustainability of this business model

However.....



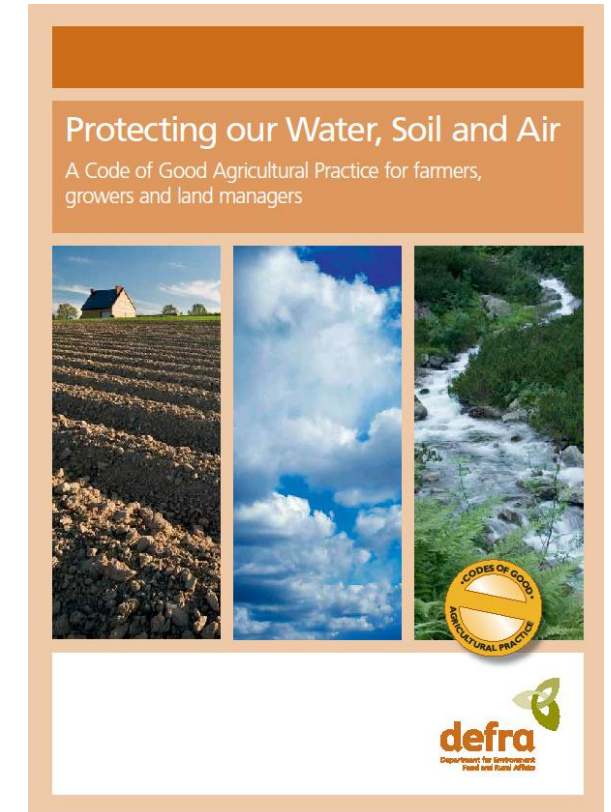
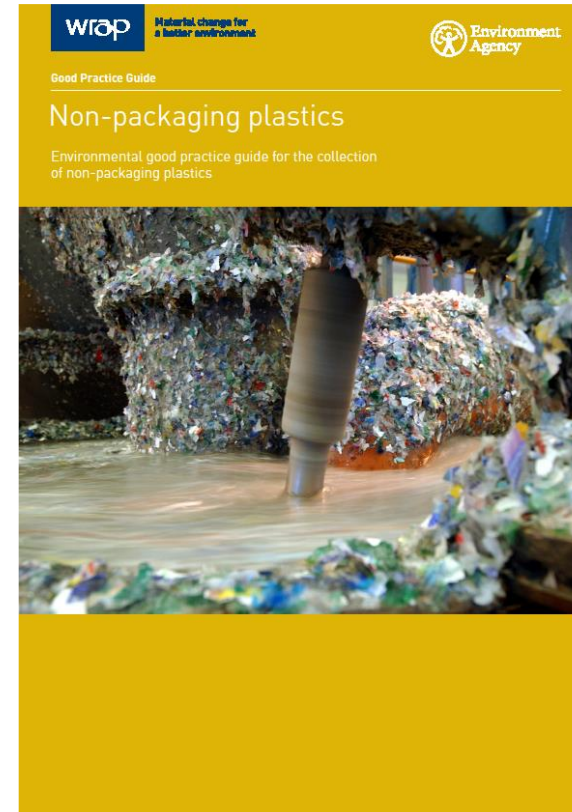
The benefit of plastics within agriculture presents a new challenge

Waste Management



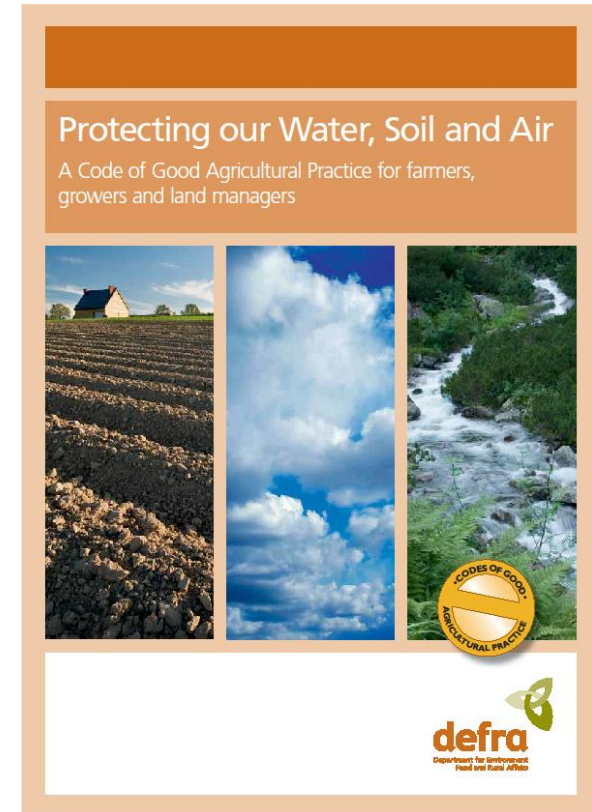
What is good waste management?

- Segregate it at source
- Keep it clean
- Keep it dry
- Keep it contained and away from livestock
- Compact it where possible to maximise storage



What is good waste management?

- Comply with storage exemptions (more detail on what this is later)
- Have it collected by an EA registered waste collector



Good waste management; Student activity

How practical is this?

In small groups or individually identify some of the challenges you may come across when trying to manage your plastic waste



5 minutes

What are the consequences of poor management?



Red Tractor
Farm Assurance



Waste Transfer Note

+44 (0) 750 804 977 or +44 (0) 749 604 0855
Web: www.hartrecycling.co.uk
Email: info@hartrecycling.co.uk

It's a legal requirement to keep a copy of your transfer note for two years from the date signed.

Company name		Account number	
Company address			
Address of transfer or collection point	Broker who arranged this transfer (if applicable)		
	Postcode		Postcode
Date of transfer DD/MM/YY		Time(s)	

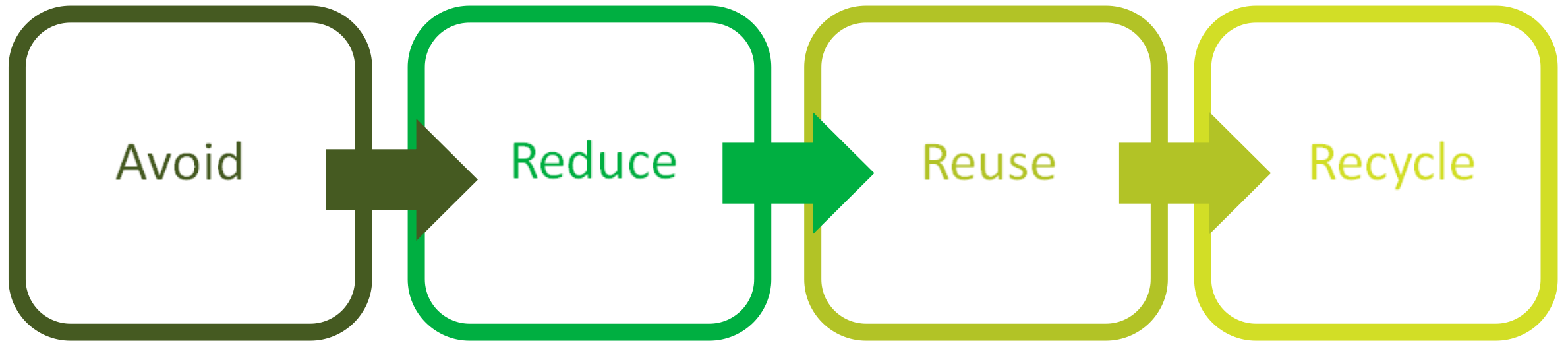


SAI GLOBAL

Cross compliance 2019

Farmers and land managers must follow these cross compliance rules from 1 January 2019 if they claim for the Basic Payment Scheme (BPS), a stewardship scheme or the English Woodland Grant Scheme (EWGS) in 2019.

The waste hierarchy



Waste hierarchy case studies; Reduce

Silage

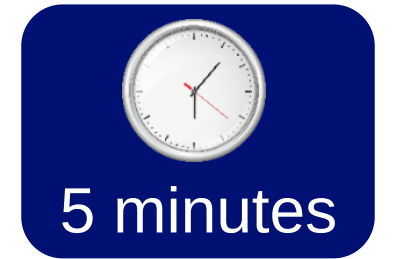
- Use a combination of silage wrap and silage pits
- Could you make less silage?
- Would deeper silage pits be a possibility?
- Check the machine is properly set to ensure sheets are buried at the edges.

Choose film rolls without plastic centres e.g. cardboard

Other ideas for reduce?

- Buy bigger bags of fertiliser and feed
- Check if the amount of mulch film used is correct or necessary
- Refill: do any of your suppliers offer a refill or take back scheme? If not, could you ask for one?

Waste hierarchy case studies; Reuse



Spend 5 minutes thinking of any ideas on how you could reuse these common plastics in agriculture?

Waste hierarchy case studies; Reuse

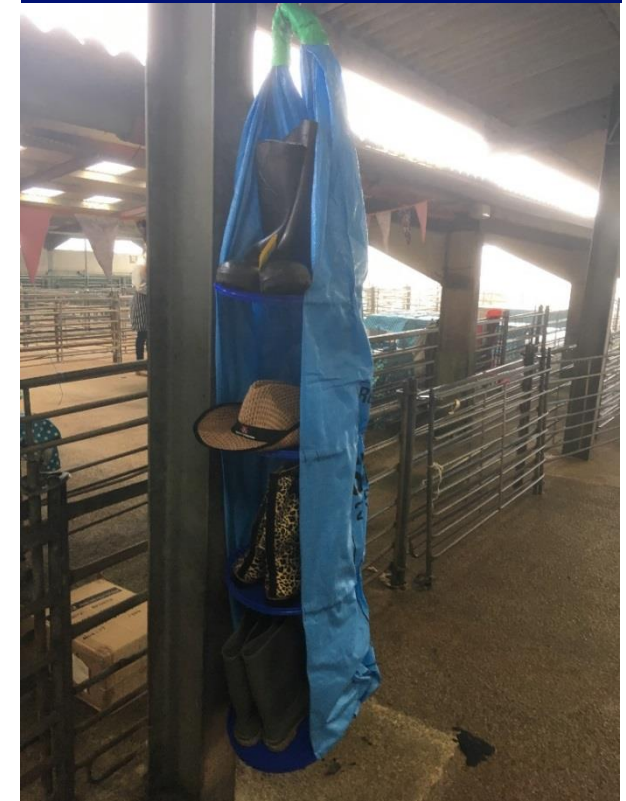
Calf shed made of IBC



Feeder for calves



Welly boot rack



Recycling – repurposing; higher or lower – what are the values of these materials?

In use on farm



Waste collection site



Washed & shredded

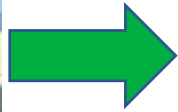


Recycled nurdles

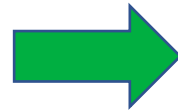


Recycling – repurposing; from silage wrap to?

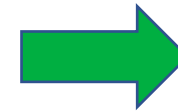
In use on farm



Waste collection site



Washed & shredded



Recycled nurdles



Waste hierarchy activity; Recycle

- Spend 10 minutes researching which products are created using recycled **agricultural** plastics - can be UK or Global
- Consider how these products could be promote a circular economy within agriculture



Categories

- > BENCHES +
- > TABLES +
- > LITTER BINS +
- > PLANTERS +

Welcome to Second Life Products Wales Ltd - Recycled Plastic Sheets and Products

Second Life Products Wales Ltd are a leading manufacturer and distributor of 100% recycled sheets and recycled plastic products for the trade. Our low maintenance outdoor recycled products include furniture, planters, fencing, lumber, signage, bollards and sheeting. We manufacture products on site enabling us to offer bespoke solutions to our customers needs as well as a wide range of standard



10 minutes

Waste hierarchy activity; from silage wrap to a picnic table (or cone..)

Picnic table



Traffic cone



Construction



Bin bags



The key to this being a viable business opportunity is a sustainable market that wants recycled production pellets

What is a Circular Economy?

Keeping resources in use for as long as possible

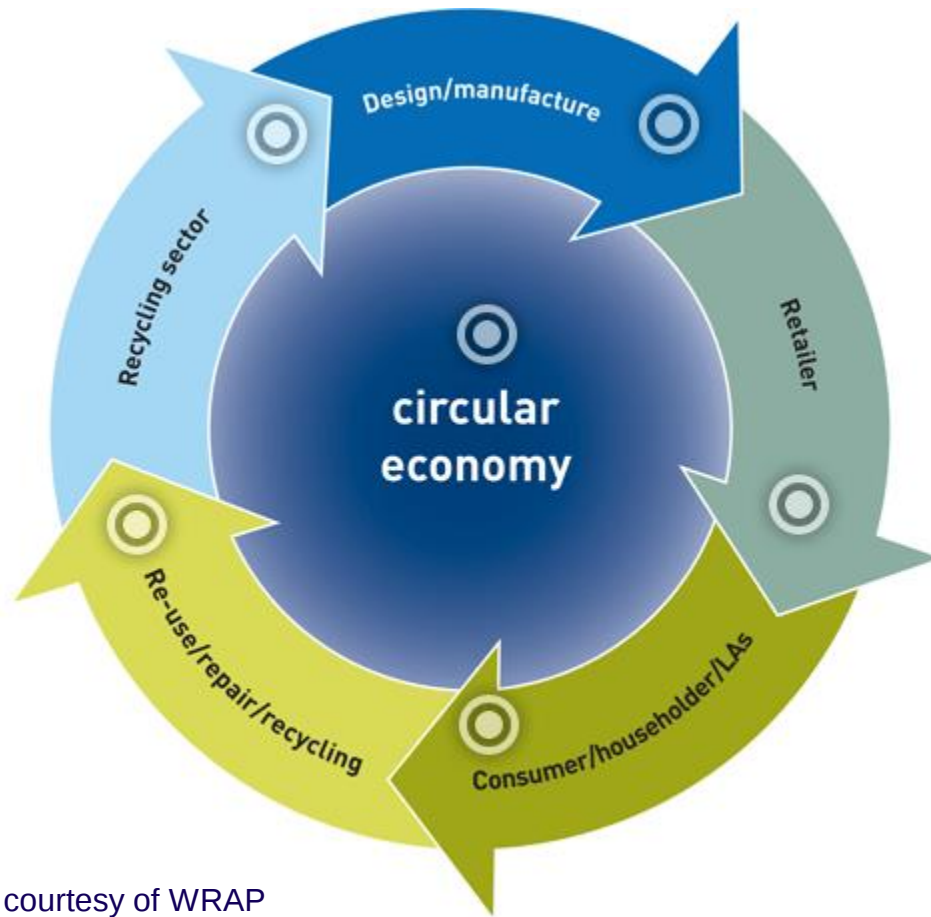


Image courtesy of WRAP

Circular economy; What does this look like in practice?

THE PLASTIC CONTRIBUTION FOR INTENSIVE ECOLOGICAL AGRICULTURE AND THE CIRCULAR ECONOMY IN 9 STEPS

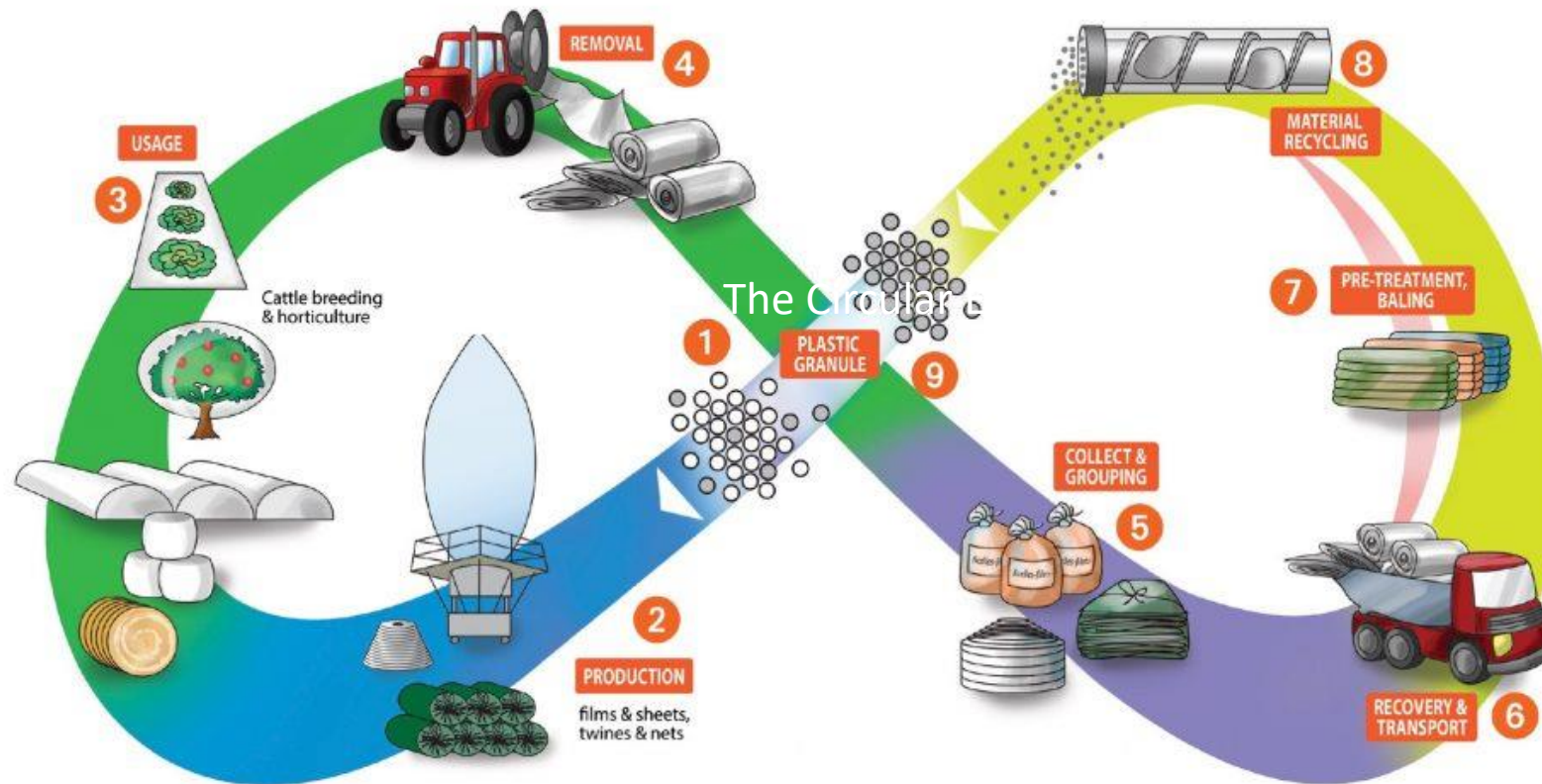


Image courtesy of CIPA

What is the future of plastics in agriculture?



Summary

What have we covered?

1. How plastics have changed farming practice?
2. The waste hierarchy within the agriculture sector?
3. Circular economy?



How plastic is used and plastic waste managed in agriculture?

Following the session why not consider:

Using the waste hierarchy to identify an item within your own or a typical agricultural setting that you could:

- Avoid
- Reduce
- or
- Reuse

Having a chat with friends, family, colleagues about agricultural waste streams- the sources, pathways and impacts