NSW Cut Flowers

Webinar 2: Recycling solutions for on-farm plastics

20 November 2025

Acknowledgement of country

We acknowledge the Traditional Owners of the Country that we work on throughout Australia and recognise their continuing connection to land, waters and culture. We pay our respects to their Elders past and present, and we acknowledge emerging leaders. Moreover, we express gratitude for the knowledge and insight that Traditional Owners and other Aboriginal and Torres Strait Islander people contribute to our shared work in Australia.

We pay respects to all Aboriginal and Torres Strait Islander communities. We recognise that Australia was founded on the genocide and dispossession of First Nations people and acknowledge that sovereignty was not ceded in this country. We embrace the spirit of reconciliation, working towards self-determination, equity of outcomes, and an equal voice for Australia's First People.

Speakers

Anne-Maree Boland
RMCG

Helena Tierney
Big Bag Recovery

Ed George
EPREnviro

RMCG

Reduction in single use plastics and chemicals in the NSW cut flower industry

Dr Anne-Maree Boland, Dr Kristen Stirling, Ellie Buchanan & Jesse Clune

This project has been funded by AgriFutures and the NSW Government under the NSW Storm and Flood Industry Recovery Program (SFIRP).

AgriFutures® Australia

NSW GOVERNMENT

WHAT AND WHY

Collaborative project working with the FGGNSW, WFA, SFN and PCA.

Developed to:

- Support a more sustainable and resilient flower industry
- Protect the environment
- Create a safer product for florists and consumers

Two key focus areas:

Chemicals	Plastics

Australian Government

NSW GOVERNMENT

AgriFutures Australia

This Storm and Flood Industry Recovery project is jointly funded by the Australian and NSW governments under Disaster Recovery Funding Arrangements

PLASTICS

Pollution of waterways and soil

Reduce reliance on plastics

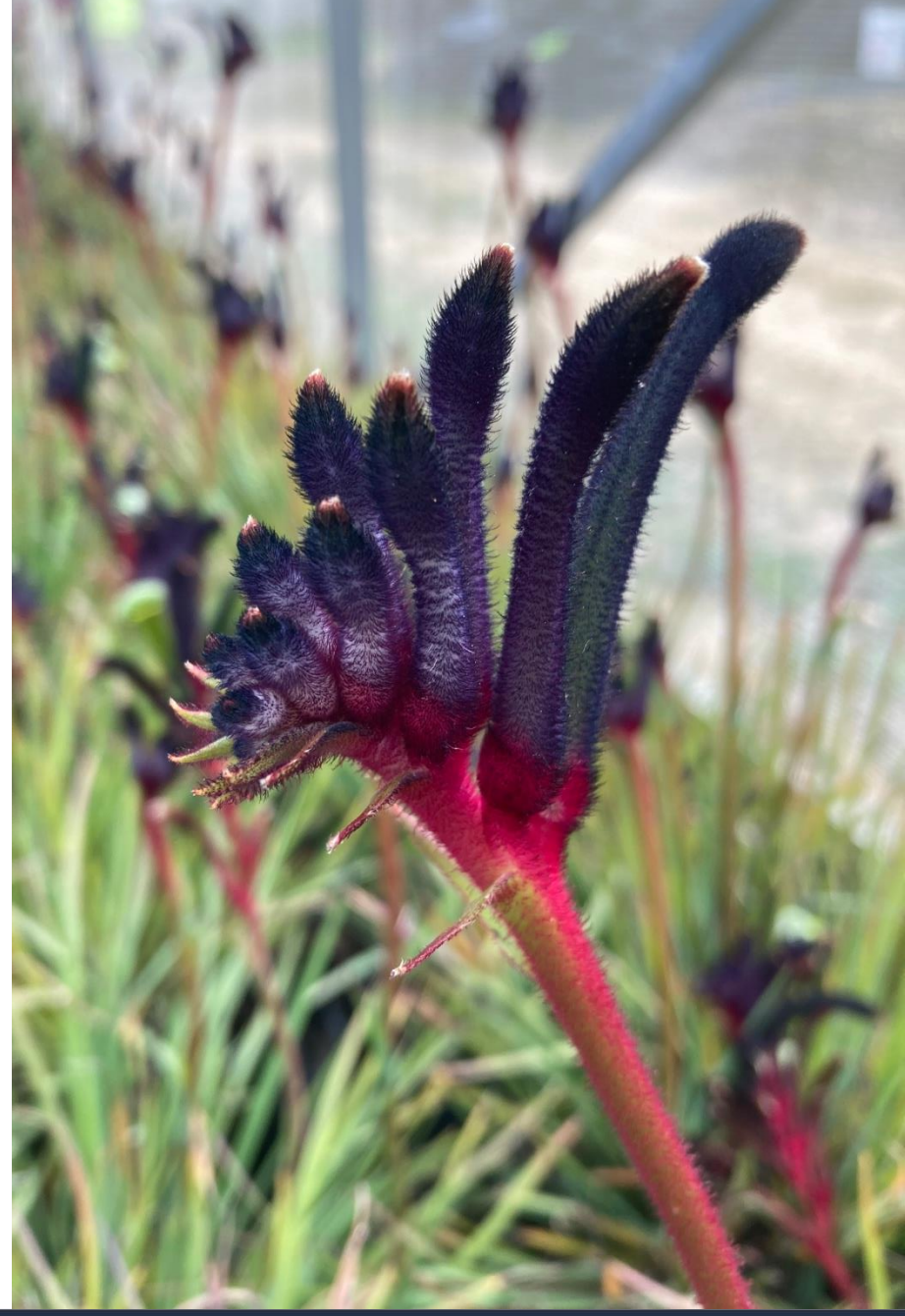
End-of-life solutions – reuse & recycling

RESOURCES

- Fact sheets
- Three-part webinar series
  - Recycling solutions for on-farm plastics (Part 1)
    - Chemical containers and pots
  - Recycling solutions for on-farm plastics (Part 2)
    - Seed/fertiliser bags and greenhouse skins
  - Rethinking plastic sleeves: challenges and opportunities (Part 3)

WASTE HIERARCHY

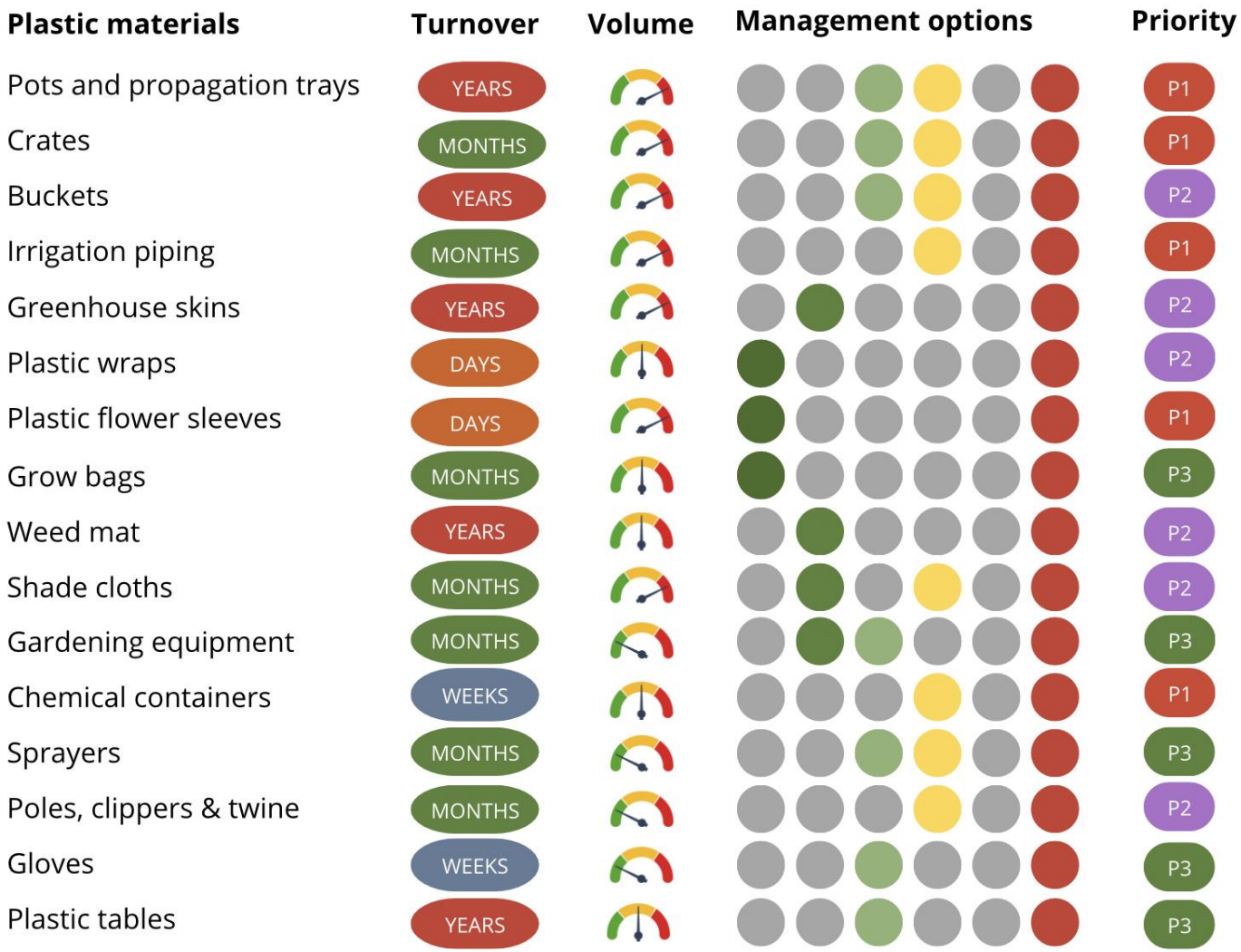
HIERARCHY LEVEL	EXAMPLES
AVOID	• Design alternative production systems that require less plastic • Avoid using plastic wrapping • Avoid using plastic sleeves
REDUCE	• Use good quality equipment with a long life span • Maintain equipment to reduce the need for change over
REUSE	• Reuse crates internally as tables for seedling growing • Reuse buckets to transport flowers • Utilise platforms such as ASPIRE and Recycle Mate for reuse
RECYCLE	• Use drumMUSTER to recycle chemical containers • Recycle plastic pots and propagation trays through the Plastic Smart Program • Engage with industry-led recycling schemes, such as Netafim for irrigation piping and Big Bag Recovery for bulk bags and sacks
RECOVER	• Convert waste to energy through large-scale facilities
DISPOSE	• Dispose of plastic waste to landfill • Stockpile plastic waste onsite



IMPACT ASSESSMENT

TOP PRIORITY PLASTICS

- Pots and propagation trays
- Crates
- Irrigation piping
- Plastic flower sleeves
- Chemical containers



	POTS, BUCKETS AND CRATES	IRRIGATION PIPING	FILMS	NETS & MESH	EQUIPMENT & OTHER
MATERIALS	• Pots and propagation trays • Crates • Buckets	• Irrigation piping	• Greenhouse skins • Plastic wraps • Plastic flower sleeves	• Grow bags • Weed mats • Shade cloths	• Gardening equipment - shovels, rakes, shears, etc. • Chemical containers • Clippers • Plastic twine • Gloves • Sprayers
POLYMERS	5 PP, 2 HDPE, 3 PVC	1 PET, 4 LDPE, 3 PVC, 7 O	4 LDPE, 5 PP	2 HDPE, 5 PP, 1 PET, 7 O, 4 LDPE	7 O, 2 HDPE, 5 PP

RESOURCES

On our website are a range of resources:

- Fact sheets
- Webinars
- Podcasts
- Videos.

FACT SHEET

NSW Cut Flower Industry

Recycling Plastic Pots and Trays

Background

Plastic plays a significant role in the cut flower industry. While the volume and type of plastic used can vary across different production systems, materials such as plastic pots, propagation trays, and buckets are commonly used throughout the supply chain.

Plastic pots and propagation trays are designed for durability and are often reused multiple times throughout the production cycle (as shown in Figure 1). However, when these items reach the end of their usable life, less than 8% of polypropylene (PP5) plastic – the main type used for these items – is being recovered and recycled.

Improving recycling rates is essential to advancing a circular economy, supporting sustainable practices and reducing plastic waste sent to landfill. Responsible management of plastic waste also helps protect the environment and minimise risks such as pollution, contamination of waterways, and harm to wildlife – particularly during extreme weather events such as flooding.

The Waste Hierarchy

The waste hierarchy is a simple guide for using resources efficiently. It suggests that we should first try to avoid waste, then reuse or recycle materials and only dispose of materials as a last resort. This approach is in line with the NSW Government's *Waste Avoidance and Resource Recovery Act 2001*.

The different levels of plastic use and waste management are shown on the following page, with examples relevant to the cut flower industry (Figure 2). Pots and propagation trays are generally long lasting and can be reused extensively. While durable and reuseable, they eventually reach end of life and should be responsibly recycled to minimise environmental impact.

Key Messages

- **MOST RECYCLABLE PLASTICS AREN'T BEING RECOVERED**
  Despite PP5 plastic being 100% recyclable, most is not currently being recovered or recycled
- **REUSE BEFORE RECYCLING**
  Pots and trays are designed for long-term use and should be reused as many times as possible before recycling
- **UTILISE RECYCLING SCHEMES**
  The Plastic Smart Program helps growers recycle PP5 pots and PS6 trays through an Australia-wide network of over 700 collection sites
- **EASY PARTICIPATION STEPS**
  To participate, sort pots and trays into PP5 and PS6 categories, tap out excess media, stack pots neatly, and drop them off at your nearest collection site

Figure 1 (below). Pots and propagation trays on-farm

Images: RMCG

Revolutionising Plastic Bag Recycling for a Sustainable Future

About Big Bag Recovery

- **Who we are:** Australia's leading bag recycling initiative, Government Accredited
- **What we do:** Collect, recycle, and repurpose bulk plastic bags (over 15kg/l capacity)
- **Industries we serve:** Agriculture, mining, construction, food & more

Australian Government Accredited Product Stewardship Scheme

Type of Plastic

Big Bag Recovery can accept:

- Woven Polypropylene
- Low Density Polyethylene

The Problem

The Problem

Bulk bags play a vital role in key Australian industries - **food**, **manufacturing**, **farming**, and **resources**.

But too often, these bags end up in **landfill** or are **burned or buried**, wasting a valuable material and releasing **harmful toxins** into the environment.

By **recovering and recycling** these bags, we can **reduce waste**, protect our environment, and keep valuable **resources in circulation**.

The Solution

The Solution

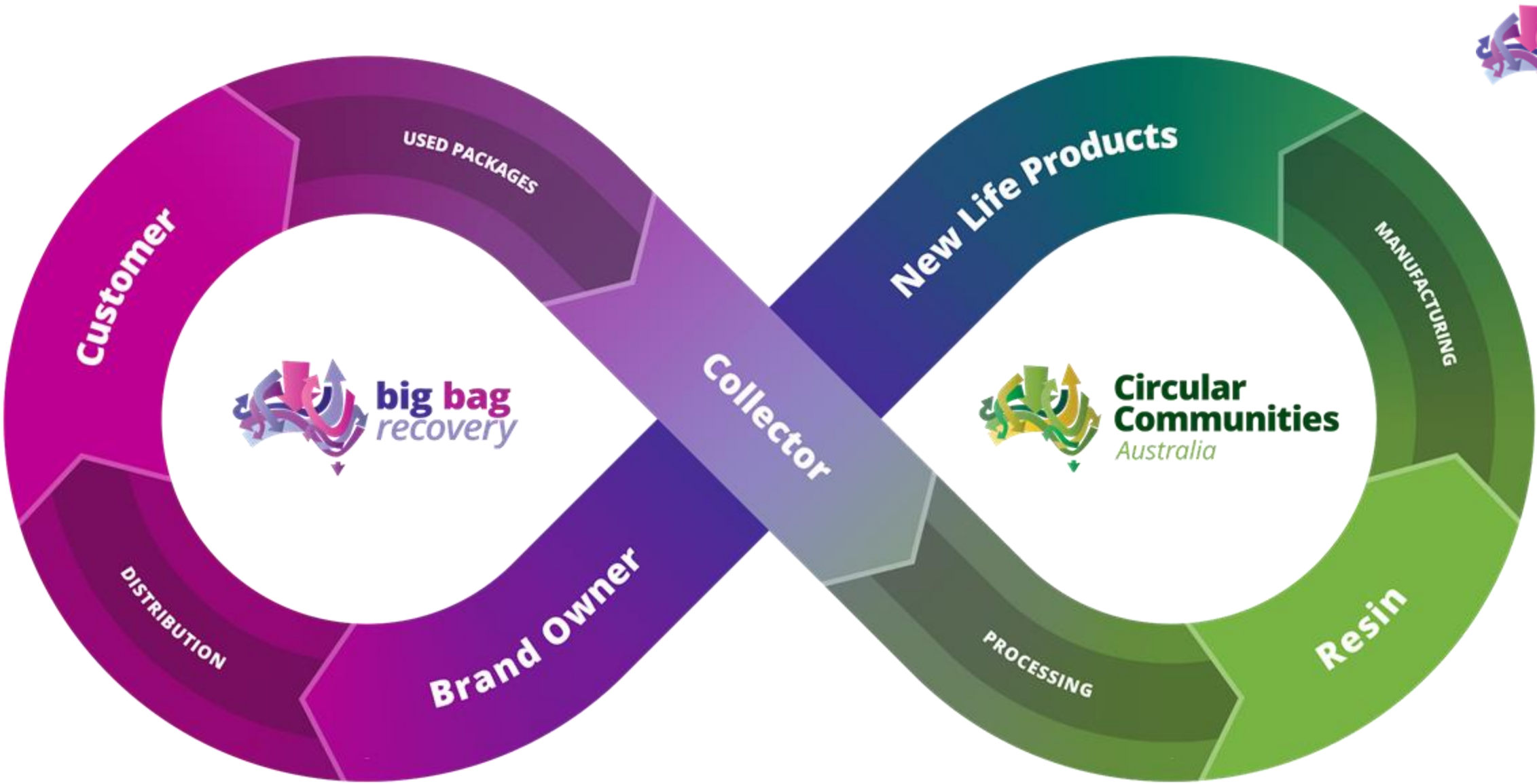
Circular Communities Australia

Bags are collected by our network of collectors and stored at designated locations.

They are transported to specialised facilities where they are **cleaned and shredded into small flakes.**

The flakes are melted and extruded into **resin pellets.**

These pellets are manufactured into **new products**


Customer
USED PACKAGES
Collector
New Life Products
MANUFACTURING
Resin
PROCESSING
Brand Owner
DISTRIBUTION
big bag recovery
Circular Communities Australia

Circular Communities Australia

Circular Communities Australia opened in February 2025 and is one of **17 facilities worldwide** that has been **purpose built for bulk bag recycling.**

Location: **Toowoomba, Qld**

Circular Communities Australia

Pellet to Product

The Impact

8,333,051 kg

plastic recovered

Track & Traceability

Tracing Recyclable Material

Big Bag Recovery has developed a **traceability system** that **tracks** each step of the **recycling process.** This system helps **measure** and report the **environmental** and **economic benefits** of **recycling.**

Traceability means **tracking recycled materials** through every stage of the **supply chain**.

This **traceability** gives businesses clear evidence of their **recycling results**. Through **live dashboards** and **reports,** members can see:

- **how many bags are collected**
- **when the bags are collected**
- **where they are collected from**

Pickup Overview

455 kg — Weight

138 — Bag Count

21/10/2025 — Pickup Date

Before Image

Details

PRODUCT INFORMATION

Brand: Incitec Pivot

Product: Incitec Bulk Bag

Type: FIBC Bulk Bag

Unit Weight: 3.30 kg

ORIGIN

Location: Pursehouse Rural

Address: 59394 Bruce Hwy, Tully

Non-Program Bags: Not Allowed

COLLECTOR

Name: Endeavour Foundation-Innisfail Depot

Address: 80/88 River Avenue, Innisfail, QLD 4860

DESTINATION

Collector: Endeavour Foundation-Innisfail Depot

Depot: Endeavour Foundation-Innisfail Depot : Depot 1

Address: 80/88 River Avenue, Innisfail, QLD 4860

NOTES

No notes available.

Driving demand for recycled materials

Australia Post has partnered with BBR to recycle over **100 tonnes** of plastic **mail bags** at CCA.

These **plastics** are turned into **recycled polypropylene (rPP) pellets.** These are used to make new pallets for **Australia Post's logistics.** Each **pallet** is made from:

- **90% recycled plastic from mail bags**
- **10% recycled car bumper bars**

The entire **process is fully traceable.** This gives confidence in **recycled content** claims and supporting **sustainable procurement** practices.

Our Members

Advantage Agriculture
Agricon Products
AkzoNobel
amps agribusiness
Apparent
Australian Farming Services
handel:
HPA
ICL
impact fertilisers
Incitec Pivot Fertilisers
iO Independents Own
bandag
BioMar
Bisley The People Who Know Materials
Black Bag Roasters
BLM blue lake milling
Brown's fertilisers service first
iOR
Kingenta
Kongal Seeds
LS Precast
MSM Milling
Nomad Coffee Group
Bundaberg Brewed Drinks
Castle Mountain Zeolites the finest zeolites
Down Under Covers Cover Crops & Forages We've got you covered
ecogrowth fertiliser for life
Eggstra
Elders
Nutrimax Essential Everyday Coverage
ofi make it real
omnia Nutriology
OPTIFERT
OPTIMILK High Performance Dairy Concentrates
OCP Organic Crop Protectants
Enaex Australia
EPG Seeds
Fonterra Dairy for life
grolean Complete
Grow Force
Haifa
Ozcal
OzcalBoron
OzcalMag
Ozgyp
OzgypZinc
Platinum Blasting Services
Puma Bitumen
Reid Stockfeeds Trusted Performance
Remedy
Rivalea Australia
Skretting a Nutreco company
SlingShot Intelligent Sheep & Beef Nutrition
veanavite
Veneziano Coffee Roasters
Vinocor
Vitasoy
VIVA Energy Australia
Wengfu Australia
soilsfirst
Summit Fertilizers
Swancorp
Tatiara Seeds Pty Ltd
The Refund Station
Titan Ag Crop Protection
Whitfert
Yara

Thank You

bigbagrecovery.com.au

Recycling Greenhouse Films:
how, where, when

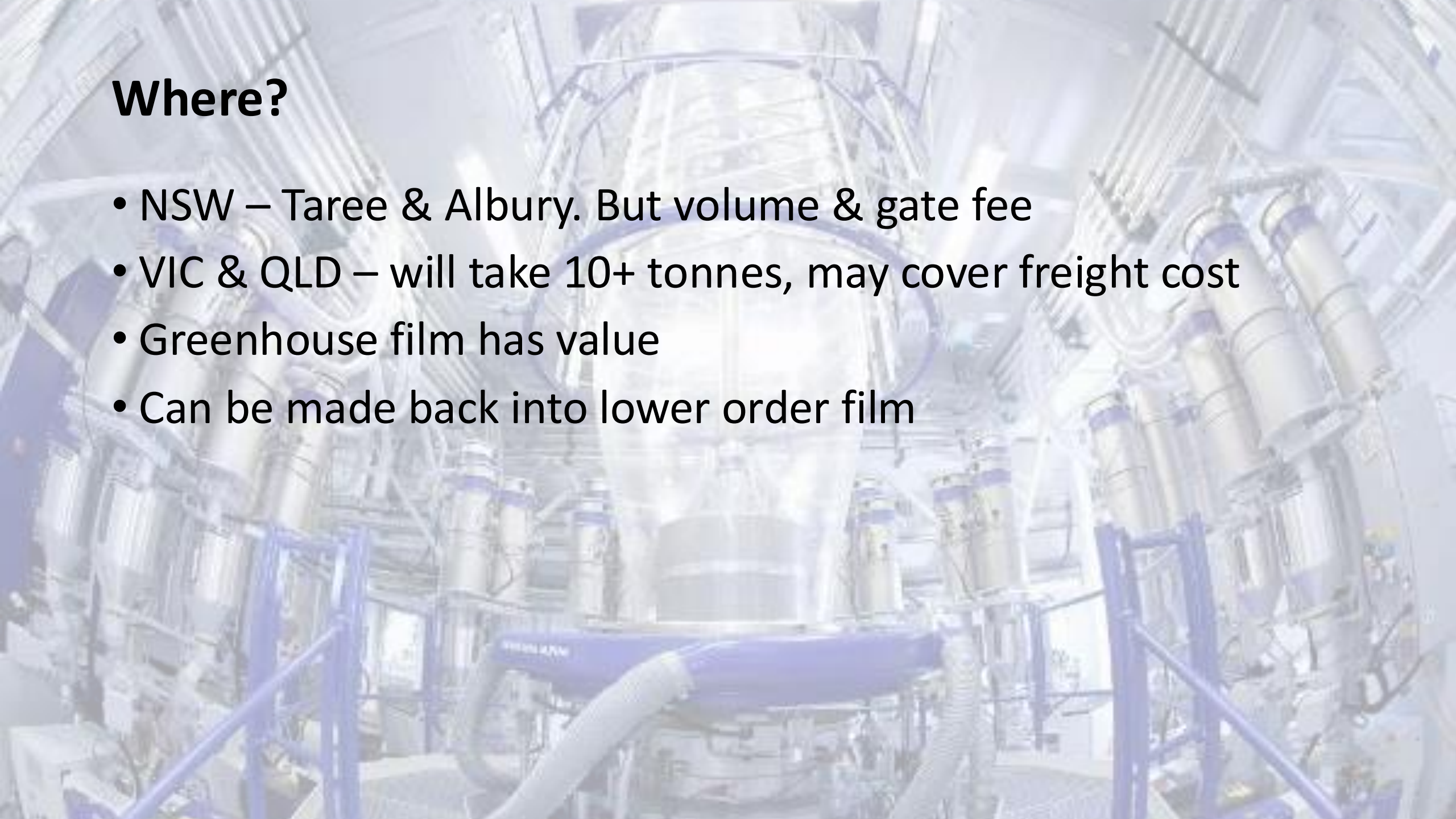
Ed George **EPR Enviro**

EPR enviro

How?

- Reskinning – every 7-10 years
- 180 – 200um LDPE film or woven HDPE Solarweave style
- Volume low, even twin skin
- Segregation of material, no contamination
- Recycled via Redpath for large scale growers
- No formal system in place

EPR enviro



Where?

- NSW – Taree & Albury. But volume & gate fee
- VIC & QLD – will take 10+ tonnes, may cover freight cost
- Greenhouse film has value
- Can be made back into lower order film

When?

- There is the recycling capability
- Its increasing every year
- Horticultural plastics – “low hanging fruit”
- Coordinated collection system
- Recyclers need volume
- Plasback NZ, Clean Farms CN

COMPOSTIBLE & BIODEGRADABLE

- Single use, short life
- Mulch films, twines, twist ties, clips etc
- Compost with crop green waste
- On farm disease mitigation

EPR enviro

QUESTIONS?

Ed George

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Panel Q&A Session