

## INTRODUCTION

On October 13<sup>th</sup> 2020, Greenlife Industry Australia (GIA) and the Australian Packaging Covenant Organisation (APCO) hosted more than 60 industry participants at the second Sustainable Packaging in Horticulture (SPiH) sectoral workshop. The session continued work commenced at the inaugural working group meeting, held in June 2020 and the following report provides a summary of outcomes generated during the course of the Oct 13<sup>th</sup> meeting.

For more information on the inaugural workshop the following documents are available for download:

- [SPiH Industry Workshop – 19 June 2020– Slide Deck](#)
- [SPiH Inaugural Industry Workshop – 19 June 2020– Summary Report](#)

## WORKSHOP AGENDA

The session was convened with two key objectives:

1. To provide an update and to progress work on the design and implementation of an ‘Alternative Destination’ collection model for Polypropylene (PP RIC #5) plant packaging (Pots, tubs, tags and stakes).
2. To commence the process of aligning the Greenlife industry supply chain with the Horticultural Packaging Value Chain, to identify material flows and losses and define priorities and strategies for improved sustainability and resource recovery for horticultural packaging.

## SESSION REVIEW

### 1. POLYPROPYLENE PLANT PACKAGING RECYCLING PROGRAM

#### UPDATE

Substantial work was undertaken in the lead up to the inaugural SPiH workshop in June, to build industry support for the establishment of a national recovery program. Shortly after the June workshop, the Australian Government invited funding submissions to the \$20m National Product Stewardship Investment Fund (PSIF). The funding round is calibrated to deliver the objective articulated under Target 3 of the [National Waste Policy Action Plan 2019](#), of an *80% average resource recovery rate from all waste streams, following the waste hierarchy, by 2030*. The use of Product Stewardship models, providing the frameworks and recovery systems to manage packaging waste through the entire lifecycle, are identified in the Action Plan as an essential pillar in delivering that target.

As acknowledged across the sector, the horticultural industry is a major user of Polypropylene (PP5) plant packaging and the work already undertaken through the SPiH to develop a product stewardship model for PP5 provided a foundation on which to build a submission. APCO and GIA reviewed the PSIF funding guidelines and elected to submit a proposal, consolidating previous preparatory work, seeking support for a national PP5 Plant Packaging Recycling Program (the ‘PoPPr Program’).

# Sustainable Packaging in Horticulture

## Industry Workshop Summary Report

After three weeks of intensive work crystallising the project into a compelling submission, APCO led the application in partnership with GIA, seeking \$549,000 in support of the PoPPr Program. The application received formal support from allied industry associations including Horticulture Innovation Australia and the Landscape Association and was submitted on time, on August 21 2020.

The 2-year, high level draft project plan, developed to accompany the funding submission, was distributed to the registered SPIH working group attendees prior to the October 13<sup>th</sup> meeting. The purpose was to gather input on the plan from participating industry representatives and potential program participants, and to commence expansion of the project plan, with a view commencement of the project on January 2<sup>nd</sup> 2021, as described in the NPSIF submission timetable.

**Polypropylene Plant Packaging Recycling (PoPPr) Program**  
**Product Stewardship Scheme Development – Two-Year Projected Activity Plan**  
 January 2, 2021 to December 30, 2022

Development Stages	Key Activities	Jan 21 to June 21	July 21 to Dec 21	Jan 22 to June 22	July 22 to Dec 22
Stage 1: Business Case Development 6 Months	Desktop research – reports, websites, academic papers, international benchmarking				
	Scene Setting <ul style="list-style-type: none"> <li>Current recycling status</li> <li>Operating environment</li> </ul>				
	Material flow analysis				
	Product impact analysis				
	Infrastructure mapping <ul style="list-style-type: none"> <li>Research on industry capacity and capability for recovery</li> </ul>				
	Stakeholder mapping and engagement strategy				
	Industry engagement to agree on a collective approach to find solutions				

PoPPr Program Development Model – August 2020 1 | Page

Table 1 - PoPPr Program Draft Project Plan - Stage 1: Business Case Development

The plan was broken into three groups, each focused on two key activities and the attendees were then distributed into breakout groups for further discussion and refinement.

Following is a summary of those discussions, by breakout group.

### BREAKOUT GROUP SUMMARY

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#### Group 1

##### Key Activity #1:

Desktop research – reports, websites, academic papers, international benchmarking

##### Key Activity #2:

Scene Setting –

- Current recycling status
- Operating environment

*#1 – Collate / evaluate existing / proposed programs / schemes in other jurisdictions, contextualised to the Australian market.*

- Home Depot – US – Reuse / recycling
- Association of International Horticultural Producers – 2019 *Plastics in Ornamental Horticulture – Creating a Sustainable Supply Chain* conference outcomes
- European models in operation – full participation along packaging value chain, collection schemes, research into NIR detection capability at Material Recovery Facilities
- UK Horticultural Trades Association Taupe Pot project

*Expanded Planning Steps:*

1. Conduct desktop research
    - a. Review international action on general and horticulture-specific PP5 recycling
    - b. Review international landscape for mandatory and voluntary product stewardship schemes, to identify alternative models and best-practice approach
    - c. Review academic research to establish evidence-base for PP5 recycling
    - d. Compile Evaluation paper to establish international benchmark / best practice approach for Horticultural PP recycling
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*#2 – Scene Setting - Identify potential data / information sources*

- Potential to use APCO Consumption & Recovery Data as National lens
- Lifecycle Assessment reports – survey manufacturers / distributors / importers of PP packaging sold in Australia, on use / availability of LCA in product assessment.
- Understand existing pathways for PP through Australian resource recovery system – eg: MRF capacity sortation to mixed bales → secondary sorting,
- MRA Consulting – research into PP recycling – invite to share findings

*Expanded Planning Steps:*

2. Scene Setting – Australian market
    - a. Identify independent data sources tracking PP5 / Packaging recovery in Australia
    - b. Survey industry participants along Packaging Value Chain – commence development of data set for ongoing program monitoring and reporting
    - c. Investigate research studies on Australian market for virgin and recycled PP5
    - d. Compile Evaluation paper to articulate current state of play for PP5 recycling in Australia and identify system gaps / loss points and
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end-market opportunities to absorb recovered materials surplus to horticultural demand.

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## Group 2

### Key Activity #3

Product impact analysis

### Key Activity #4

Infrastructure mapping

Research on industry capacity and capability for recovery

### #3 – Product Impact Analysis

- Investigate alternative material types for some of the packaging materials / formats identified as the highest priorities – piping, thermoform trays, greenhouse film, irrigation packaging. Exploring possibilities to transition these formats into PP.
- Sources of data to assist with analysis: e.g.
  - pot levies paid to the Dept.;
  - APCO Annual Reporting tool;
  - Compile information via a survey to Working Group members participants and suppliers / customers.
- Industry education critical (e.g. landscapers) to support a feeling of co-creation in developing and participating in the process.

#### Expanded Planning Steps:

#### 3. Product Impact Analysis

- a. Identify alternative materials for current PP5 applications – pots, tubs, trays, stakes, distribution packaging
- b. Review international literature – SWOT analysis (LCA, recyclability / reusability / compostability, use benefits, system barriers / challenges etc)
- c. Survey industry to identify different material types usage.
- d. Collate profile paper articulating the impact of a range of material types used in Australian applications that sit within the scope of the project.

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### #4 – Infrastructure Mapping

- Infrastructure – engage Industry packaging value chain (expand from GIA Supply Chain) to support mapping of capacity / capability
- Align with findings of preceding activities in Project Plan

#### Expanded Planning Steps:

#### 4. Infrastructure Mapping

- a. Assess current infrastructure capacity along PP5 packaging value chain
- b. Survey industry participants to identify key infrastructure gaps / loss points
- c. Develop economic / environmental analysis
  - i. Cost|Benefit on current material recovery and reprocessing, costs / volumes of material to landfill,

- employment opportunities, capacity building, reduced impact of externalities, etc,
- ii. Align C|B Analysis with product impact analysis for alternative materials)
- d. Contrast current infrastructure mapping / loss vs PP5 projected outcomes

### Group 3

#### Key Activity #5

Stakeholder mapping and engagement strategy

#### Key Activity #6

Industry engagement to agree on a collective approach to find solutions

#### #5 – Stakeholder Mapping Actions

- Identify CORE and SUPPORTER stakeholder groups and roles in project implementation – Packaging Value Chain as model for identification
- CORE = Enabler eg: growers, retailers by channel, resin producers, packaging manufacturers, consumers, local government, landscapers, waste handlers / re-processors
- SUPPORTER = Endorser – eg: NGOs (Greening Australia, Landcare, ASBEC, state nursery associations), Community Garden groups, produce / artisan markets, PS organisations, construction / property developers
- Identify motivations for each identified stakeholder group
- Develop Stakeholder-specific key messaging outlining role in program to encourage participation
- Engage CORE Stakeholder group early in the process to support early / ongoing endorsement
- Aim for ACCC accreditation to embed / validate / legitimise program.

#### Expanded Planning Steps:

5. Stakeholder Mapping
  - a. Identify stakeholders in CORE and SUPPORTER groups
  - b. Develop stakeholder profiles to identify motivations / key messaging / supporting resource requirements
  - c. Develop stakeholder contact lists / communication plan
  - d. Implement stakeholder communication plan – initiate through stakeholder consultation event / workshop

#### #6 – Industry engagement to gain endorsement of articulated business case for the PoPPr Program

- Consultation to develop industry consensus on Business Case and support scheme design and implementation
- Early engagement with Government is imperative – consult with state / territories / local government to understand conditions for engagement / participation
- Establish marketplace connections between Gov't and through CE Hubs (SV, Planet Ark's CE Hub)
- Demonstrate industry appetite for collaboration on packaging challenges to Government – alignment with / contribution to the delivery of National

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Waste Strategy Targets, collaborative industry approach to delivering positive outcomes for packaging sustainability.

### *Expanded Planning Steps:*

#### 6. Industry Engagement Strategy

- a. Plan / undertake early informal industry engagement activities with CORE stakeholder groups via existing network, to raise awareness and commence engagement with PoPPr Program project
- b. Crystallise preceding activities to finalise PoPPr Program Business Case
- c. Develop supporting materials to support / promote Business Case / program proposals
- d. Develop staged engagement strategy, including long-term industry-focused strategy (project period and beyond), aligned with key project stages
- e. Implement Industry engagement strategy to establish endorsement of Business Case and feedback on program design proposals.
- f. Promote industry endorsement of PoPPr Program to stakeholder audience, particularly Government.

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## 2. HORTICULTURAL PACKAGING VALUE / SUPPLY CHAIN MAPPING

### THE STARTING POINT

Data collection to quantify the flow of packaging material through the Horticultural sector was identified as a priority at the June workshop. Collating material flow data along the packaging value chain will enable the identification of material leakage points and aid the development of strategies to reduce loss and increase material circularity for all horticultural packaging.

It was agreed that the first stage of this process was to create a sector-specific Packaging Value Chain, aligning the GIA Greenlife Supply Chain (Fig. 1) and the overarching APCO Packaging Value Chain (Fig. 2), to understand the nuanced flow of materials along that value chain and identify the down-stream pathways for horticultural packaging materials in Australia.

The group collectively reviewed a draft map provided in advance of the session (Fig. 3) and gave feedback on the current circumstances relevant to their own position in the Packaging Value Chain.

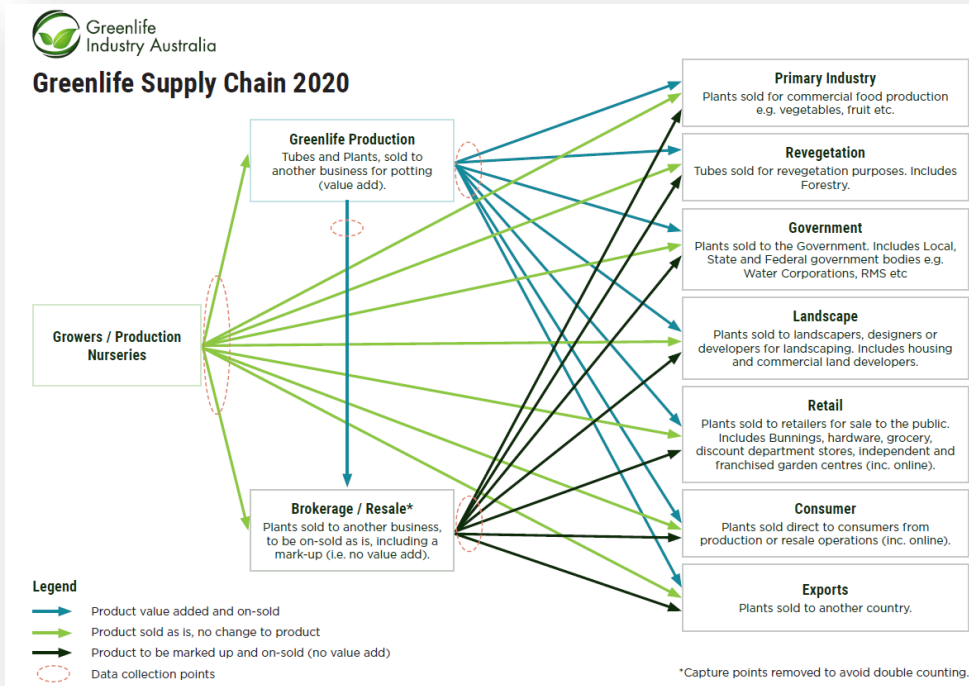


Figure 1 - GIA Greenlife Supply Chain 2020



Figure 2 - APCO Packaging Value Chain

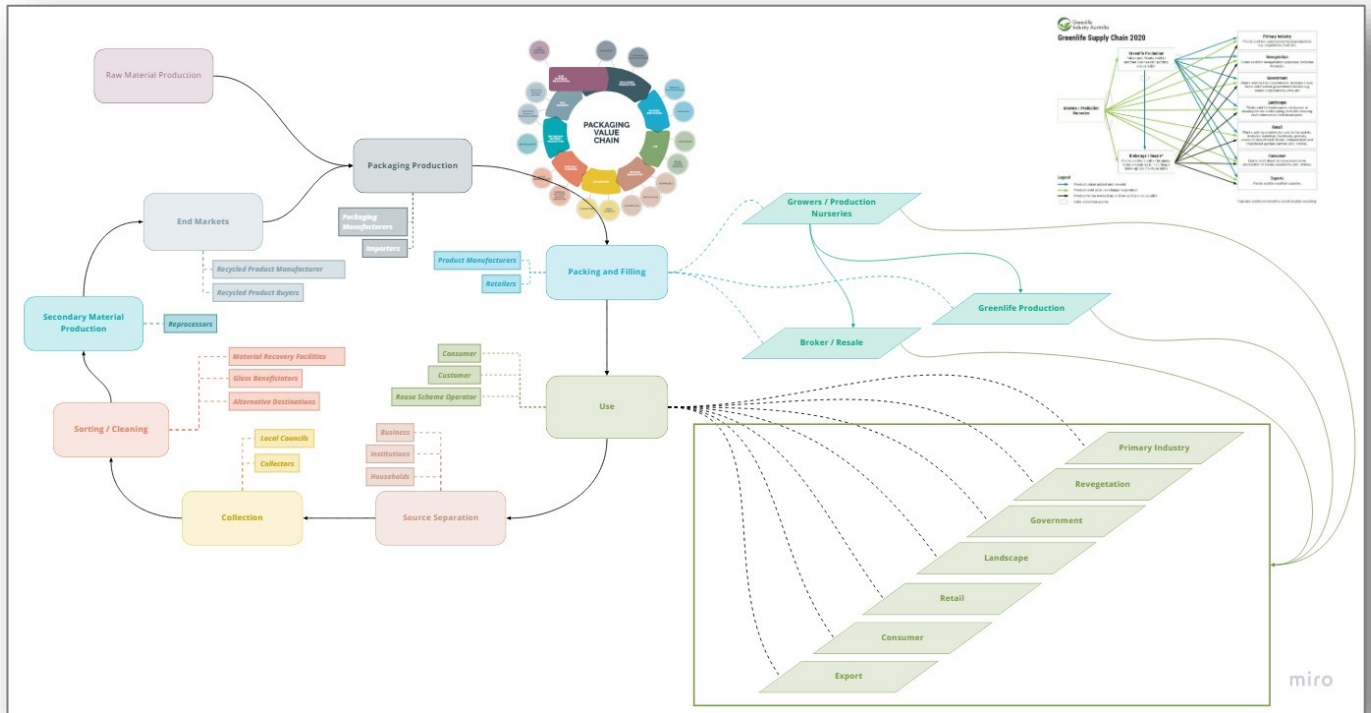


Figure 3 - Draft Packaging Value Chain Map

Discussion focused primarily on the downstream pathway for materials emerging from the **USE** link on the Packaging Value chain, in the context of the PoPPr Program. This process, while centred on PP5 Plant Packaging, highlighted the complexity of capturing materials after use from a highly diversified user audience for Greenlife products.

## KEY POINTS

- Need to differentiate primary / secondary / tertiary packaging definitions across Packaging Value Chain
- Economic viability of reprocessing model must be considered for each packaging material type / format / material
- Differing use / disposal behaviours exist between different Greenlife USERS.
  - **Consumers** – household / kerbside collection, but not always through yellow (recycling) bin – volumes being lost to landfill and down-cycled in mixed plastic bales – not always captured through primary or secondary sortation.
  - **Primary Industry**
    - *Vegetable supply chain*
      - Reuse models for plant packaging / labelling – collection, sanitisation and reuse
      - Number of cycles dependent only on durability of packaging material
      - When packaging material fails → captured and recycled into new containers labelling
    - *Fruit Packaging*
      - Soft containers, eg: PE bags are destroyed during planting, being sent to landfill



- Rigid containers – sent back to production nursery for reuse or disposal – dependent on location and individual nursery interest in reuse.
- *Revegetation*
  - Widespread reuse throughout revegetation sector
  - Growing and planting often done by the same business – recovering plant packaging for sterilisation and reuse.
  - Supply to customers – offer / provide reuse options, but materials not captured generally go to landfill.
- *Landscaping*
  - Different understanding of Recycling / Reusing exists
  - Contrary opinions on destination for landscaping plant packaging – some impression of high recycling rates, other impression of significant loss to landfill – *need to source data to clarify pathways and recovery rates.*
  - Landscapers will seek to return packaging to supplier, but if not, materials generally go to landfill
  - Very high volumes of packaging – costs to service reuse potentially prohibitive
  - Significant opportunity for improved resource recovery through this channel.
  - Recovery / reprocessing likely to be a more cost effective / less challenging approach than collection / sanitisation / reuse – *need to evaluate costs as part of product impact analysis stage of Business Case Development for the PoPPr Program*
  - Investigate potential to leverage existing Product Stewardship programs (eg: DrumMuster) to encourage landscapers to engage in recovery program – need to evaluate more broadly for wider range of materials and target users.
- *Other comments*
  - Some users are landfilling onsite, to avoid landfill costs
  - Community enthusiasm and increasing expectation for recycling systems / services
  - Need to track spillage and wastage within material flow pathways
- The positions of the COLLECTION and SOURCE SEPARATION links of the Packaging Value Chain should be swapped
- The SORTING / CLEANING and SECONDARY MATERIAL PRODUCTION links could be merged
- In some situations, END MARKET participants are also involved in SECONDARY MATERIAL PRODUCTION within the sector.

## NEXT STEPS:

- Await funding announcement – anticipated w/c 16 November 2020 at the earliest
- Review workshop feedback on Key Activities list and tasks, to ensure that the plan will meet requirements to delivery PoPPr Program
- Update Project Plan to reflect expanded Activity / task list for Stage 1 – Business Case Development
- Review and feedback on updated PP Packaging Value Chain Draft to agree starting point for PoPPr Program, with further refinement likely as project evolves.

# Sustainable Packaging in Horticulture

## Industry Workshop Summary Report



- Think about Program name and branding – we encourage everyone to come to the November workshop with some creative ideas for program names and logos
- Think about Core and Supporter Stakeholders at your point on Packaging Value Chain.

As discussed during the meeting, we invite you to join us for the next workshop session **11am-12pm on Tuesday November 24th**, where we plan to:

- update the working group on progress with the PoPPr Program funding application and how the project will progress
- review expanded PoPPr Program project plan
- review updated Packaging Value Chain mapping for Polypropylene packaging

Please click here to register - <https://www.eventbrite.com.au/e/sustainable-packaging-in-horticulture-update-workshop-24-november-2020-registration-127955380989>

**We look forward to seeing you again on November 24<sup>th</sup>...**

**Jayne Paramor**  
Sustainability Partnerships Manager  
APCO  
[jparamor@packagingcovenant.org.au](mailto:jparamor@packagingcovenant.org.au)

**Peter Vaughan**  
Chief Executive Officer  
Greenlife Industry Australia  
[peter.vaughan@greenlifeindustry.com.au](mailto:peter.vaughan@greenlifeindustry.com.au)