



FARM WASTE: practical solutions for berry growers

Berry Practical 2026 | Emily Tee, RMCG

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Certified



Corporation

Horticulture sector - waste generated

AUSTRALIA-WIDE, PRE-FARM GATE

16.3M tonnes/yr

Organic, plastic & workshop waste generated by Australian agriculture, fisheries & forestry before produce leaves the farm.

HORTICULTURE'S SHARE

3.31M tonnes/yr (20%)

Australia's 2nd-largest waste-generating sector — behind Broadacre (43%), ahead of Livestock (22%) and Dairy (13%).

Organic waste

3.21M t

96.8% of horticulture's total

e.g. crop/product loss, harvest residues, prunings - mostly re-used on-farm, not landfilled.

Plastic waste

62,662 t

1.9% of horticulture's total

e.g. pots, nets, film & irrigation pipe - only ~2.6% currently recycled.

Workshop waste

43,740 t

1.3% of horticulture's total

e.g. mostly treated timber (trellis/tunnel posts), tyres & oils.

What are the main waste materials?

Think about waste across the whole farm – not just what goes in the skip

Organic waste

- Rejected fruit
- Crop residues
- Pruning material
- Spent coir/substrate
- Other plant material

Plastic waste

- Mulch film
- Tunnel film
- Irrigation tape
- Coir bags
- Pots/trays
- Chemical containers
- Fertiliser bags

Workshop waste

- Oils
- Tyres
- Batteries
- Metals
- Treated timber
- Machinery parts
- Hazardous waste

Opportunity to treat materials as resources – move up the waste hierarchy



Can only manage what you measure

A simple farm waste stocktake can reveal the easiest 'wins'

1

WHAT?

What are the main waste streams?

2

HOW MUCH?

Estimate volumes and when they arise

3

WHERE DO THEY GO?

Reuse, stockpile, recycle or landfill?

4

WHAT DOES IT COST?

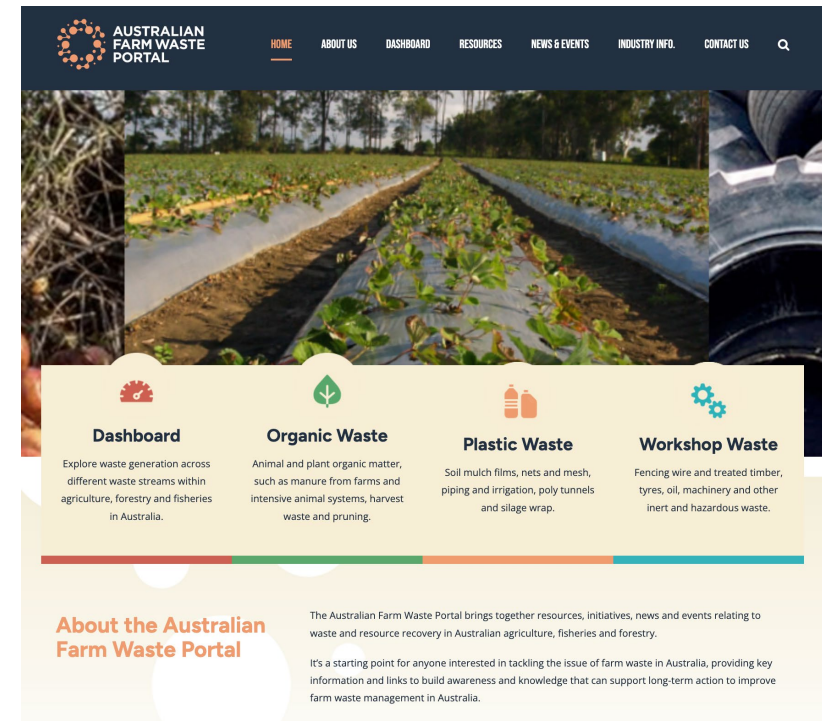
Labour, storage, transport and disposal

5

WHAT COULD CHANGE?

Avoid, separate, aggregate, reuse or recover?

ACTION: Use the Australian Farm Waste Portal and dashboard as a starting point for waste information and resources



ORGANICS - keep nutrients & value in use

Avoid & reduce

- Reduce crop losses where practical
- Improve harvest and handling
- Avoid contamination that limits recovery

Reuse & recycle

- Reuse suitable substrate
- Compost clean plant material
- Return organics to land where appropriate

Check before you act

- Biosecurity
- Disease risk
- Chemical residues
- Plastic contamination
- Local rules & markets

Spent coir can have value but the plastic bag and the substrate need to be separated for both to be recycled well

ACTION: See FruitGrowers TAS - Spent Coir Recycling Project
(website - fruitgrowerstas.org.au/coir-reuse-project-findings-2026)

Spent coir – on-going research



Current situation

- 2,400–3,500 t / yr spent coir
- Default - stockpiling
- Barrier - separating liner/bag from coir

Trials

- Reuse of coir (2nd season)
- Cross-crop reuse
- Sterilisation options
- Blend with alternative substrates
- Switch from bags to troughs



Recycle options

- Link with a local organic recycler/composter
- Compost on-farm
- Direct reuse as mulch/soil amendment
- Potting mix additives
- Animal bedding

.....before committing:

- Test EC & pathogens risk
- Avoid reuse on same plant family
- Transport issues
- Recyclers ~ \$40 - \$60 /t (free?)

PLASTICS - available recycling pathways

CHEMICAL CONTAINERS

Plastic type: High Density Polyethylene

Action: Rinse + separate

Pathway: **drumMUSTER**

Use eligible container collection points

BULK / FERTILISER BAGS

Plastic type: Woven Polypropylene (PP) / Polyethylene

Action: Keep clean + dry

Pathway: **bagMUSTER / Big Bag Recovery**

Check supplier & regional collection

IRRIGATION TAPE

Plastic type: Polyethylene

Action: Coil + minimise soil

Pathway: **Netafim Recoil program**

Dense, clean material improves logistics

POTS & TRAYS

Plastic type: PP

Action: Sort by polymer (PP5, PS6)

Pathway: **Plastic Recycling Program (Garden City Plastics)**

Keep separate from films & contaminated plastic

TUNNEL & MULCH FILM

Plastic type: Low/Linear Low Density Polyethylene (L/LLDPE)

Action: Keep streams separate

Pathway: **Location-dependent**

Plan removal & outlet before it comes off

COIR / SUBSTRATE BAGS

Plastic type: L/LLDPE

Action: Separate coir + plastic

Pathway: **On-farm opportunity**

Empty & bale bag for better recovery

Case study in Southern Downs - irrigation drip tape



Existing practice



Why coil it?

- Minimises contamination compared with loose piles
- Uses significantly less storage space
- Safer and faster to handle and load
- Higher density improves transport logistics
- Can avoid the need for baling equipment

Pilot practice

Pilot growers included Ashbern Farms (strawberries). The recycler turns collected material into recycled LDPE.

Difficult plastics - ongoing challenges

Recycling **tunnel film**, **mulch film** and **substrate bags** face several barriers at once

Contamination

Soil, plant material and moisture
reduce material value

Volume

Films are bulky unless rolled, baled
or otherwise densified

Freight

Long distances can overwhelm the
value of recovered plastic

Infrastructure

Suitable processors and collection
points are unevenly distributed

End markets

Recycling only works when there is
demand for the recovered material

Growers can improve material quality — but aggregation, infrastructure and markets need collective solutions

Tunnel film - plan for end-of-life before removal



- Keep tunnel film separate from other plastics and waste
- Minimise soil, vegetation, clips and other contamination
- Identify the polymer/product where possible
- Talk to supplier, recycler or collector before removal
- Coordinate removal and aggregation with neighbouring growers
- Avoid promising recycling until an outlet and specifications are confirmed

Moreton Bay study: ~2.2 t of polytunnel film per hectare; growers commonly replaced film at ~5 years.

Berries Australia. (2021). *Plastic waste evaluation Moreton Bay berry industry*.

WORKSHOP WASTE - small but important risks

Used oil

- Store securely
- Prevent spills
- Use approved recovery routes

Product Stewardship for Oil

Batteries

- Keep protected and separate
- Recycle through suitable collections

B-Cycle

Tyres

- Avoid uncontrolled stockpiles
- Use legitimate tyre recovery routes

Tyre Stewardship Aust

Metals & parts

- Separate reusable and recyclable metals from general waste

Hazardous waste

- Identify, label and store safely
- Use authorized disposal/ recovery

ACTION: Check stewardship schemes for locations - keep workshop & hazardous materials separate from other waste streams

Five actions for on-farm & industry

-  **1 Know your waste** Identify the main organic, plastic and workshop streams
-  **2 Separate at source** Clean, separated materials have more recovery value
-  **3 Ask before you buy** What happens to this product at end of life?
-  **4 Use existing pathways** Avoid landfill material where a practical recovery route exists
-  **5 Work together** Difficult plastics need aggregation, industry and supply-chain solutions

Where to start

Australian Farm Waste Portal:

farmwaste.com.au

- Pre-farm gate waste dashboard
- Organic, plastic and workshop waste resources
- Waste hierarchy and practical guidance
- Links to programs, initiatives and further information

**How can we keep each material in use for longer
— and out of landfill?**



Thank you

RMCG

