# Reflections and summary of Future of Orbost & District of 2-day Industrial Hemp forum – November 2025



## Bob Doyle, Doyle Rural Services


## Jan 2026

## Contents

# 1 Introduction

## 1.1 Background

This report summarises a short engagement undertaken as part of the Future of Orbost & District (FoOD) project's early-stage investigation into opportunities in the emerging industrial hemp sector. The investigation considers the potential role of industrial hemp in supporting economic diversification and long-term resilience following the cessation of native timber harvesting in Victoria.

The engagement was exploratory in nature and is intended to inform further discussion and investigation; it does not constitute a detailed feasibility study, business case or investment assessment.

The engagement was delivered over two days. Day 1 focused on site visits to former timber mill locations in Nowa Nowa, Brodribb and Newmerella to assess their potential suitability for hemp-related activities, including processing, storage, logistics and infrastructure reuse, as well as discussions with Gippsland Seed Services regarding opportunities to strengthen industrial hemp seed supply resilience. Day 2 comprised a facilitated presentation and workshop, where preliminary findings were shared and participants engaged in structured discussion on market context, processing and commercialisation pathways, potential business models, supply chain configuration, and identification of priority leverage points and next steps to support coordinated early investment and maintain momentum.

The workshop comprised a good mix of participants from industry, government and community.

## 1.2 Summary

Based on my own industry experience, it is my opinion that Orbost presents a compelling opportunity for an industrial hemp hub, with potential that is at least comparable to, and in some respects greater than, other proposed locations across Australia.

There is a unique set of criteria that make the opportunity real.  First is the opportunity created by the agricultural potential of the district. Secondly is

the focus created by shutting of the native forests. Third is the strength of the local community.

To achieve sufficient scale to attract investment and generate meaningful employment, a minimum target in the order of 1,000 hectares is likely to be required over time. This does not imply that 1,000 hectares need to be planted in the initial years. Nor does it suggest that early-stage business planning should be framed as immediately replacing the employment or economic activity lost to the community; rather, it represents a realistic long-term scale necessary to underpin a viable industry.

This workshop has been a catalyst to discuss alternatives. The people who attended the workshop obviously have a wealth of knowledge and are innovative by nature. Hemp processing in Australia is not well developed. The economics require innovation and the ability to adapt existing machinery used in other industries including around the world to some of our unique requirements.

The engagement with the Government is excellent to observe. This industry cannot develop without collaboration and cooperation with the 3 levels of government in Australia.

This report summaries some of the issues that need further discussion

# 2 The program for the workshop.

## 2.1 Day 1

**Nowa Nowa Mill**

This site has potential if it is the only mill available for hemp processing. It also has potential if the Parkside Mill is taken up as it complements some of the constraints at Parkside.

If the only Mill available is the Nowa Nowa site it can be used to decorticate and some value adding to the hurd product. Hurd products can be stored on site. Bast can be baled for export.

Of the 2 sites Nowa Nowa it was suggested by participants in the workshop is better suited to farm biomass bale storage because of a lower bushfire risk. Storage can be an option even if Parkside is the principal place of decortication.

The site also has potential for panel or block construction from the hurd using existing storage for curing of either product.

Nowa Nowa can be used for panel and/or block construction if the main decorticator is set up at Parkside.

While Nowa Nowa site doesn't have the capacity potential of Parkside it can be the startup site and it will still offer opportunities if Parkside does become part of the Orbost Hub.

The key to commencement of a decorticator line is to get 1 or 2 decorticator lines operating. Growth of the Hub will then become self-funding.

**Parkside Mill**

This has excellent potential.

The first site that is developed needs the decorticator. Parkside has the better facilities for a decorticator processing with space to process in excess of a 10,000t of crop.

The highest risk for developing Parkside is bushfire Risk.

Locals need to consider fire risk to the site and appropriate risk mitigation strategies.

Bales can be stored at both Mill sites or on farm.

New crop would start arriving in February. Harvest would be finished from dedicated Fibre crops in April.

To be economical and to support permanent staff processing needs to occur all year. That means 9 months' worth of bales need to be stored under cover.

Building a hemp processing Mill will only be economic if the output is high to premium grade for a large percentage of the product.

The bales must be stored under cover to meet premium grade bast and hurd products.

Parkside has a large hardstand area and much larger bale storage capacity. The tonnage of bales stored on site needs to be related to throughput. There are excellent examples of dealing with a lack of storage of the bales at processing facilities from French Cooperatives.

While storage of processed product is all undercover it can be assumed the area under crop will grow at the same pace as market offtake. Hemp product manufacturers in general require a steady supply so decorticated product in storage will be around that 1 month of bale supply.

**John Mekken's Mill**

Effectively not available. Sawdust / chip bins have potential to be used if either or both the other 2 mills become options to develop.

One of the most critical discussions from that visit was the Gross margin of alternative crops. There is no rocket science in John's comment. Farmers will grow the crop that provides the best Gross margin not withstanding some allowance for rotational benefits from different crops.

What does need to occur with that discussion is the need to establish how farmers measure their costs. That is a discussion that needs to occur fairly early in the development of this project.

Farmers will have a minimum payment expectation to grow the crop. The product customer will have a price they are prepared to pay determined by the cost of alternatives.

**Gippsland Seeds**

There are excellent opportunities for Gippsland Seeds to be included in the Hub. These opportunities are discussed below.

### 2.2 The Dinner

A number of opportunities came out of an informal gathering of stakeholders over dinner. These are developed through the discussion below.

### 2.3 Day 2

Day 2 included an agronomy-focused presentation by Rob Eccles and John Muir (materials provided to participants). The discussion highlighted key agronomic considerations for the region and for different end-uses.

## 3 The Opportunities

### 3.1 Biomass Opportunities

The focus of the visit was on biomass opportunities. To date bast fibre opportunities across Australia have been limited, while internationally there are well-established bast fibre markets and applications. A key constraint in the Australian context has been the difficulty in clearly defining end-product specifications and performance requirements, which has hindered market development and investment. Where objective and market-aligned specifications can be established, there is clear potential to unlock bast fibre opportunities.

From a production perspective, while some agronomic requirements will require refinement, Orbost & District has suitable land and conditions to grow industrial hemp crops. Crop production itself is not the primary constraint. Rather, the identification of viable markets and clear product specifications will determine achievable prices for growers and, ultimately, the viability of Orbost as an industrial hemp hub.

The potential availability of existing sheds and infrastructure to support biomass processing represents a significant strategic advantage. Re-purposing these assets could materially reduce the capital required to establish initial processing capability—potentially lowering upfront investment by several million dollars—and is a critical component of the opportunity for an Orbost-based hub.

### 3.1.1 Housing products

The housing products that can be produced from biomass including Graded hurd, Whole stalk, Fines and Dust.

The current prices of hurd over $2000/t makes hurd production very profitable. With some hurd selling for over $3000 /t while high profit it is an unsustainable price. The problem is a limited market at that price.

These are some personal comments on likely process as the industry develops. Hurd over $2000/t is okay for 100 houses a year across Australia.

For Orbost to be a viable hub it needs to be confident it will get to 200 houses a year in the Orbost district in the short term. To be viable in the medium term the plan needs to establish some confidence around 500 to 1000 houses a year.

The business plan needs to confident it is profitable at a price for graded hurd under $1200.

There are Victorian hemp industry people who say it must come under $1000 /t. We will need a thriving bast market for the price to come in under $1000/ t for graded hurd or the price to the farmer will be too low and they will grow alternative crops.

Equally there needs to be a focus on achieving improved efficiencies in the construction sector. The cost of the hurd in a house construction is very low. Labour requirements are a much higher component. Construction efficiencies also need to be included in big picture Plan.

Tom Smith from Pyramid Hill says the minimum to pay farmers in irrigation districts is $600/t. Without detailed gross margins I consider Orbost farmers will achieve a satisfactory gross Margin when the price at the farm gate is $500/t of baled crop for a crop focused on hurd production. If hurd is selling for $2000plus /t the farmer should be getting $600 -$700 per tonne ex farm gate in bales.

### 3.1.2 Bast markets.

This is the opportunity to make a hub viable.

This as an opportunity probably needs to engage more broadly across other hubs.

There are a number of export bast markets under development in eastern Australia.

No detailed public information is available at the moment but it is developing rapidly. There will be opportunities that will benefit from bast production across a number of regional communities. Personally I have been confident it will progress for many years. I have never been more confident but the deals haven't been completed as of Jan 2026.

The quality of the bast demanded by the processor has a significant impact on both the variety and the agronomy of the crop. High quality bast markets have a lower biomess yield than the genetic potential biomass yields. High quality bast crops will be paid at a significantly higher price per bale at the farm gate to compensate for the lower total yield.

Board manufacture is an opportunity that can take up bast in the short term. That can make the processing mill viable in the short term while the graded hurd price remains above $2000 / t. It remains a high risk decision if the average value of the crop processed remains under 2000t /annum.

### 3.1.3 CHEP pallets

Simon, from Food & Fibre Gippsland mentioned CHEP pallets at the dinner.

This is a very real opportunity that can be developed. It has great farm potential and a medium opportunity for manufacture. It can be in its own right be the foundation manufacturing process that allows the bast and hurd housing products to develop at a slower rate. One million pallets requires 800 to 1200 ha of high yielding biomass crops depending on the pallet spec. All the original development work occurred at the CSIRO in Geelong.

There have been technology improvements at a research level to commercialise this product opportunity

There was an issue with the resin used originally but that is an improving opportunity.

Australia produces 10M new pallets a year. Simon will have far superior knowledge. A facility producing 1M pallets a year is a viable business in its own right.

### 3.1.4 Board

There are a number of board products that have been developed around the world and there is talk of product being developed in Australia. There has been no formal release of product development in Australia. It is a huge opportunity. Hemp Inside which I am part of, is developing this opportunity. The opportunity is such it needs scale. Orbost has some unique strengths where this can be developed. If production is cost efficient multiple sites across Australia are feasible

There will be byproduct of decortication that will be ideal to be used in the manufacture of board. Some of the technology is compatible with the pallet manufacture.

This product manufacture is very compatible with timber technology.

## 3.2 Food Grain opportunities

The grain industry also remains immature although it is more mature than the biomass industry.

The opportunity is likely to be in 400 to 500t per annum in the near future that could be grown in a region like Orbost. Other people in the industry will provide a more accurate assessment than what I am able to do. Both the AHC and the VHA can provide actual data of production across Australia.

If the cost of growing can be reduced in the Orbost region compared to Tasmania than that opportunity can grow at a steady rate. While I don't understand the detail of the scale as well as I should to be making comment but 1500 -2000t per annum is a reasonable target.

2000t is approximately 1000ha of crop with a biomass yield of 3 -5t/ha largely determined by variety and harvesting equipment available.

The biomass by-product from grain production that helps reduce the price required for grain will help allow hemp grain production to be a more profitable crop than alternative crops or enterprises in the Orbost region.

**Immediate opportunity**

Stan's trial will give you some of the answers. The photos of this year's crop show a higher yield potential than last year's.

**Medium term Opportunity.**

The demise of a number of hemp grain processors including Ecofibre / Ananda Foods and the food processing facility in Geelong represent a real opportunity for grain production. The fact you have a seed grower/processor in your region means you have access to the technical expertise you need to dry and store the food grain correctly. There are no acceptable excuses for grain being grown in 2025/2026 not to meet food specifications. The industry continues to have failed grain crops from both poor drying and poor storage. The skills and Knowledge of Gippsland Seed Services represent an excellent opportunity for the district

**Longer term**

Once the grain trading price of Australian grain reduces and gets closer to an import parity price domestic grain production will increase.

There are opportunities in the organic grain market with some producers already operating in VIC. A significant current constraint to more organic grain production is a lack of suitable varieties that are matched to regions across Australia.

I don't have a detailed understanding of all existing agriculture crops in the Orbost region. With the right varieties there is no reason why the region cannot become a hemp grain hub.

One opportunity for the Future of Orbost Group is to define your crop strengths and constraints and either run your own grain trails or join in National programs.

## 3.3 Seed opportunities

The current ideal biomass varieties are **not** varieties that are suitable to be bulked up as seed in your region. This as an issue needs further discussion.

The ideal varieties for biomass in your region need to be grown at latitudes further north for seed production.

Never-the-less The Seed production skills of the region along with South Gippsland Seeds can used to supply seed across the whole of Australia.

# 4 Inspection of Facilities that have potential for industrial hemp processing

Existing timber Mill facilities offer shed space, hardstand and machinery that can be used in a biomass processing facility.

The processing of hemp biomass is about moving product at various stages of processing that has many similarities to moving timber mill products.

Without any doubt, investing in a brand-new, purpose-built hemp processing facility would deliver the highest efficiency. However, Orbost does not yet have the offtake agreements required to justify a greenfield investment of $15M+ in dedicated equipment, shedding and hardstand. Access to existing (but currently underutilised) timber mill sites provides a significantly lower-capital pathway to establish early-stage processing capability.

There is potential for at least 2 Mills to be used as part of an Orbost & District Hub.

The strengths of each Mill can be optimised.

John Mekken's Mill site isn't available to consider. There may be some suitable machinery but it is limited.

The highest priority to determine possible options is Parkside. With or without Parkside there are opportunities to use Nowa Nowa.

If you move forward with securing the opportunity to use the Parkside site, you could develop plans in enough detail to include foundational figures needed for a business case.

New or machines built for industrial hemp that will be required.

1. Hemp Mower
2. Bale Teaser - can be modified from other industry machines but also can be bought built for hemp bales
3. Decorticator must be hemp specific and more importantly it must produce the targeted bast markets.
4. Bast cleaning and packaging equipment

# 5 Constraints and Risks including some identified by participants.

## 5.1 Current Status of the Industry.

John Richardson identified the current status of the Aust Industry as a constraint.

This is a valid point. Orbost needs to draw on experience across the industry but more importantly use your community strengths to drive this opportunity. Use the experience across Australia to avoid making the same mistakes.

The focus must be on offtake agreements. For the hurd that is housing. For bast that is textile grade exported to China. Then there is board.

## 5.2 Seed quality

This has been an issue. There is a need for taking more responsibility for maintaining the germ of seed and the seed processor as well as the transport to farm and storage on farm. Hemp seed requires a significantly higher standard of care.

## 5.3 Building Codes

Having approved building codes is a major constraint. It is probably the main reason we are not building more than 50 hemp houses a year.

One of the most knowledgeable people in this space is Darren Christie.

Darren is continuing to pursue getting approved building codes including requirements to meet Victoria Bushfire rating.

Hemp has great potential in bushfire prone areas.

There is also Klara Marossekey and David Brian to be used as resources in this space.

Darren says there are 2 major constraints to building more than 100 houses a year – building codes that allow a house to be insured and a satisfactory bast market. The Bast opportunity is discussed separately.

## 5.4 Scale

I continue to stress that achieving a scale which enables full-time employment and delivers a return on capital consistent with commercial standards is essential for the advancement of the biomass processing facility in Orbost.

Scale is crucial for the single agriculture machine designed specifically for harvesting hemp. The final specifications will determine the requirements for the mower. This equipment may cost anywhere from $500,000 to $900,000. To produce baled product at the farm gate valued at $500 per ton, over 500 hectares are needed. Ideally, each mower should serve around 800 to 1,000 hectares.

## 5.5 Qualified builders.

There are currently enough hemp builders across Australia to build 50 houses a year. People like Darren Christie and David Brian will be more accurate with a number.

As an industry and startup hub, Orbost must be directly involved in training qualified builders. Qualified professionals will be needed to construct high-quality housing, regardless of the method or product used—whether insitu, prefab, blocks, or board.

There is also an opportunity to include in existing agriculture training a unit on growing hemp. I don't have any knowledge on Tertiary training in Vic. It can certainly be a component of TAFE level training.

## 5.6 Carbon Account.

Carbon accounting represents an opportunity for building with hemp products. Even though there is no certified carbon platform that includes hemp it is being developed. So, while it is a constraint in that the hemp industry needs the economic benefit from a carbon platform, a certified platform remains in development.

I recommend you have discussions with Winton Evers from Ecoprofit.

Our family farm operation has commenced testing his platform on both land owned and share farmed. We are already registered for Soil Carbon Credits that meet ACCU requirements.

The program being developed by Ecoprofit while it started as a hemp carbon platform has developed into a farm record keeping system that can account for all farm carbon emissions.

It will play a vital role in helping Australia reduce its carbon emissions as well measuring changes in sequestering of carbon.

# 6 Summary and Recommendations

Building on the district's existing strengths, Orbost represents a strong and credible opportunity for the establishment of an industrial hemp hub. While the industry in Australia remains at an early stage of development, the underlying conditions and assets in Orbost position the district well to play a leading role as the sector evolves. Realising this opportunity will require deliberate action to activate the full value chain and address current market, capability and coordination gaps.

The workshop identified a number of clear priority areas for future focus (Attachment 1). Together, these provide a robust foundation for a strategic, collaborative and adaptive approach—one that moves beyond isolated projects, aligns stakeholders around shared objectives, and supports a staged pathway toward scale, investment and long-term impact.

There are a lot of statements that ideally need expansion. So please read with caution and don't rely on using the information without further qualification. Feel free to contact me for clarification.

RJ Doyle

Jan 2026

**Attachment1: Priority focus areas – next steps identified from forum**

*Orbost hemp hub – leveraging local strengths*

- Mothballed Mill sites/infrastructure
- Engineering
- Advanced Manufacturing (Built QA/Dahlsens Steel Truss and Frames)
- Land/climate/soil
- Farming
- Gippsland Seed Services
- Energy
- Community interest/support
- Transport (Pelz Haulage, etc)

*Specific focus areas for next steps*

1. Transforming existing mill sites/infrastructure into a processing hub (noting that these 3 work packages are integrated and need to be finalised in a business model on a page (i.e. Business Model Canvas e) + cash flow projection + capex requirements + high level strategy/purpose (which could lead to an investment prospectus and fund raising strategy)
    a. feasibility
        i. Engagement with owners to understand potential level of interest
        ii. Valuations
        iii. Design – process flow leveraging existing equipment and understanding what additional equipment
        iv. Ability to scale
        v. Power / water
        vi. Potential throughput/scale
        vii. Operational costs
        viii. Number of jobs
        ix. Skill requirements
        x. Capex requirements
        xi. risk

xii. Exit strategy

b. Market demand products
    i. What would be the core products to sustain initial opportunities (construction materials)?
    ii. What are the price points?
    iii. What other products could be in the pipeline?
    iv. Who will be the customers? Are there are any synergies with the supply chain relationships of the current mill owners? Other local anchor businesses?
c. Business model
    i. What would the business model look like?
    ii. What kind of business/ownership structures?

2. Exploring the broader role of the 'hemp hub'
    a. What is the role of the hemp hub in relation to the above?
        i. regional coordination and capability-building centre for the emerging hemp industry?
        ii. Encouraging further complementary innovation, R&D, and entrepreneurship?
        iii. Links to item 6?
        iv. Community engagement?
        v. ?????

3. More local trials
    a. Acknowledging/assuming that farmers will follow demand and price points – and starting with what is known to work and meet yield and quality expectations What kind of trials should continue in this phase?
        i. Use of water from waste water treatment plants?
        ii. Bioremediation?
        iii. Different seed varieties
        iv. Irrigated vs non-irrigated?
        v. Harvesting seed?
        vi. Testing existing harvesting equipment?
        vii. ????

4. Building more awareness
    a. Community events/festivals/creative arts projects
    b. Advocacy – government, industry

5. Seed
    a. Is there an opportunity to leverage the capability of Gippsland Seed Services to support the broader Australian hemp seed sector? As well as support the hub?

6. Collaborating and connecting
    a. What is the role of Food & Fibre Gippsland in supporting regional industry development and supporting the first hemp hub in Gippsland?
    b. What is the role of VHA/AHC in ensuring alignment around more generic industry needs? Specs? Standards? Traceability? National industry co-ordination alignment?
    c. How do we work together??

Other interesting potential opportunities that also emerged-:

- Could synthetic biology play a role in retting?
- Could sea-urchin shell (high in calcium) be converted to Lime as a binder for hemp construction?


Visitor economy
Local businesses
Healthy environment
Local jobs
Thriving community
Farming systems
Expanded market opps
Product
ORBOST HEMP HUB
Cooperation
Education
Research & Development
Collaboration
Innovation
Carbon sequestered
Productive & profitable
Local processing
External processing
Biochar
Soil health
Grow
Crop rotation
Harvest
Decortication
FUTURE OF ORBOST & DISTRICT PROJECT