



PALLA PHARMA

The Australian Poppy Industry

For over forty years, Australia has been a significant player in the global licit opiates supply. This is due to our suitable climates, skilful use of mechanised agriculture and world leading crop breeding. Traditionally confined to Tasmania, Palla Pharma is pleased to be sharing the opportunity to grow this unique crop with famers in Victoria, NSW, and South Australia. This will give these mainland growers access to a profitable addition to their crop rotations. Poppies are distantly removed from all other commercial cropping species, allowing for the rotation of herbicide modes of action and a break in the transmission chain of pests present in other crops. Palla Pharma has expanded into the mainland to spread its risks and extend the harvesting period. This will ensure stability of supply to meet the needs of its growing NRM and API manufacturing. Palla Pharma remains firmly committed to our growers in Tasmania.

Who is Palla Pharma?

Palla Pharma is an Australian ASX listed company established in 2004. There are three poppy processors licensed to operate in Australia. Of these, only Palla Pharma Ltd is Australian owned. There are only eight licensed narcotic facilities in the world.

Palla Pharma's competitive advantage is that it is the only narcotics facility in the world to use a water-based extraction and purification system. All other systems use toxic petroleum-based solvents with associated sustainability, health, and economic disadvantages. Our water-based system is a genuine Australian innovation which we continue to develop with intensive R&D.

Palla Pharma is now truly vertically integrated from farm to pharmacy and now produces consumer pharmaceuticals for worldwide consumption from the product that is harvested in Australia.

Why Grow Poppies?

- Winter crop with relatively high returns (\$2000 -\$4000/ha) from growing costs of \$600-\$1500/ha. Experienced poppy growers in Tasmania have achieved returns of \$8,000/ha from growing costs of \$2000/ha.
- High returns per ML of irrigation (requires only 1-3ML/ha).
- Genetically distant from other crops species (*Papaveraceae*) breaking pest life cycles present in other crop species.
- Uses a different combination of herbicide groups than other broadleaf crops. This provides growers with another tool to manage weed seed banks and developing herbicide resistance.
- Strong growth expected to meet the needs of 80% of global population without access to pain relief.

Palla Pharma Limited

PO Box 2139 Melbourne, VIC 3001, Australia

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Paddock Suitability

For a paddock to be suitable for poppies they need to meet the following criteria:

- At least 200mm of top soil
- pH of 5.5-8 in water
- Free draining soil (poppies cannot tolerate waterlogging)
- Irrigation is preferable particularly when GSR is below 600mm
- Some herbicides leave residues that make paddocks unsuitable for poppies. If you have previously used residual herbicides please note this on your expression of interest form.

Typical Season Outline

NSW and Northern Victorian crops are autumn sown (April-May). Tasmanian and Southern Victorian crops are typically Spring sown (July-September). Suitable drills need to be able to sow a very small seed (2.5 million seeds per kg) at very low rates (800g—1kg per hectare) at shallow depths (~5-10mm). The Palla Agriculture team will assist at this critical stage and throughout the season with set-up of existing gear or contractor recommendations.

The herbicide program begins soon after crop emergence at 2-4 leaf stage and can manage a broad weed spectrum. For best results select paddocks with low weed seed banks and eliminate pre-existing perennial weeds using herbicides or cultivation prior to sowing.

Agronomic advice is delivered in partnership with your existing agronomist. Palla Pharma will provide training and support to both the grower and your agronomist. We have found this to be an effective partnership that delivers quality agronomic advice whilst ensuring that recommendations are consistent and builds upon existing relationships.

Harvest occurs in Summer from December (NSW and Northern Victoria) through to February/March in Tasmania and Southern Victoria. Palla Pharma works closely with harvest contractors in all growing regions and will organise for efficient and timely harvest of your poppy crops. Freight of harvested straw to our facility is provided by Palla Pharma free of charge.

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Grower Expression of Interest Form

If you are interested in becoming a Palla Pharma grower or would like further information, please complete the below form and submit via email to enquires@pallapharma.com

Your Name:

Company Name (if applicable):

Preferred Contact Details:

Email:

Mobile:

Postal Address:

1. What is the nearest town to the proposed paddock/s?

i) What is the location of the proposed paddock (GPS coordinates or roadside address)?

2. What is the size of the cropping area on your farm?

3. What is your primary farming activity (cropping, livestock, horticulture etc.)?

4: What crops do you grow on your farm?

5. Do you have irrigation available on your property?

i) What kind of irrigation (pivot, lateral, gun, hard hose, tape, flood, other)?

ii) How much of your cropping area is/could be irrigated?

6) How much area could you assign to poppy crops?

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- 7) What is the history of these paddocks over the last two seasons?
- 8) What residual herbicides have been used in these paddocks for the past three years?
- 9) Have any of the paddocks been treated with Trifluralin? If so how long ago?
- 10) Do you have soil test results for these paddocks?
- i) What is the soil pH?
- ii) What is the soil type/texture?
- iii) Do any of the paddocks have salinity issues?
- 11) Are your paddocks fenced?
- 12) Do you have equipment capable of sowing at rates ~1kg/ha?
- 13) What are your typical gross margins per hectare from your current farming activities?
- i) What would be your goal gross margins per hectare for a new crop in your rotation?