



FieldPath

FIELD PATH EFFICIENCY

A review of international research, cost benchmarks, and practical applications for farm operations and the potential return on investment from FieldPath.

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QUANTIFYING
COST SAVINGS
THROUGH
SMARTER
MACHINERY
PLANNING

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EXECUTIVE SUMMARY

Many field operations waste fuel, time, and inputs due to inefficient driving paths. Even skilled operators using GPS guidance often overlap, over-apply, or turn unnecessarily. FieldPath uses coverage path optimisation—based on equipment size, field shape, and headland configuration—to reduce these inefficiencies.

This white paper combines international research, US extension data, and South Australian benchmarks to quantify potential savings. Results show consistent reductions in fuel use (7–17%), driving distance (15–35%), and input overlap (up to 8%). Depending on field size, these gains can translate to up to AU\$ 12 per hectare in fuel and maintenance savings alone. Including reductions in seed, fertiliser, and chemical application increases savings further—often exceeding the cost of the service within the first season (ROI >100%).

Whether for small or large-scale operations, FieldPath provides an accessible way to capture these benefits without requiring new machinery. This paper outlines the underlying evidence and offers example calculations to demonstrate the financial case for optimised field path planning.

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INTRODUCTION

Modern agriculture continues to benefit from advances in guidance technology, mapping tools, and equipment precision. Yet many farms—large and small—still lose time, fuel, and crop inputs due to inefficient coverage patterns. Even with GPS guidance and experienced operators, inefficient field paths, excessive turning, and overlapping passes remain common. These issues increase fuel usage, reduce implement lifespan, and lead to wasted seed, fertiliser, and chemical applications.

FieldPath offers a practical and affordable service that helps optimise tractor coverage patterns across individual paddocks or entire farms. By analysing field boundaries and implement widths, FieldPath generates detailed path plans designed to reduce travel distance, overlap, and turning time. These are delivered in a clear report that includes visual maps, estimated efficiency gains, and a recommended coverage strategy. The service supports a wide range of operations including seeding, spraying, fertilising, and harvesting, and can be adapted to different equipment types and farming systems.

This white paper outlines the evidence supporting field path optimisation, drawing from peer-reviewed research, extension services, and cost of production benchmarks from regions including Australia, the United States, and Europe. Independent studies consistently report fuel savings of 7–17%, reductions in travel distance of 15–35%, and overlap reduction of up to 81%.

The service is suitable for:

- Farmers looking to reduce running costs without equipment investment.
- Contractors operating across diverse properties and paddock shapes.
- Agronomists or consultants seeking efficient equipment deployment strategies.
- Any producer aiming to make more informed machinery purchase or upgrade decisions.

It is especially valuable for those managing multiple implement widths or planning equipment purchases. While many farms already use auto-steer or guidance systems, those tools alone do not optimise coverage paths or minimise turning inefficiencies.

This report includes efficiency benchmarks, example calculations, and a summary of research findings. All savings estimates are based on practical machinery parameters and assume typical operating conditions. While not a substitute for agronomic or economic advice, FieldPath's reports can complement both, giving operators and decision-makers a clearer view of how to operate more profitably and efficiently in the paddock.

INDEPENDENT RESEARCH

A review of peer-reviewed studies and field trials supports the significant operational benefits of optimised field path planning in broadacre and row crop farming. The following are headline benefits:

- Maneuvering and overlap losses were estimated between 5–15% area inefficiency for typical field coverage vs optimised patterns [Reference 15,18].
- Iowa State Extension found that coverage planning can reduce travel time by up to 12% in rectangular fields with modern equipment [Reference 16].
- South Australian no-till trials noted that poor pathing on seeding runs can create up to 8% over-application due to overlap [Reference 17].

Below is a deeper summary of published findings compiled through a large-scale search of academic literature focused on quantifiable improvements in fuel use, overlap, distance, and operational efficiency.

Table 1: Key Findings from Independent Studies

| Metric | Observed Range | Context / Notes |
|-----------------------------------|---------------------|--|
| <i>Overlap Reduction</i> | 58–81% | From GPS guidance and 3D path planning. 58% based on 10 irregular fields. 81% based on rolling terrain [Reference 7, 10]. |
| <i>Driving Distance Reduction</i> | 15–35% | Across field types and tasks. 15% based on grain harvesting [Reference 5, 14]. |
| <i>Fuel Savings</i> | 7–17% | Depending on technology and task. 7% based on grain harvesting. 17% based on 8 hectare rectangular field [Reference 8,13]. |
| <i>Time Savings</i> | Up to 60.9% | In complex operations like stone separation in potatoes [Reference 14]. |
| <i>Soil Compaction Risk</i> | Up to 25% reduction | From controlled traffic and reduced turning for grain harvesting [Reference 5]. |
| <i>Operational Cost Reduction</i> | 9–20% | From reduced transport, turning, and route inefficiency. |

The key contributing factors in gaining these efficiencies included:

- **Field Shape and Size:** Irregular and rolling fields show greater improvement from optimised path planning [Reference 7,12].
- **Operation Type:** Operations involving wide implements (e.g. spraying, fertilising, sowing) are more sensitive to overlap inefficiencies.
- **Turn Minimisation:** Studies that included turn cost in their optimisation found significant improvements [Reference 10,12].

These findings support what many farmers already suspect: traditional coverage methods, especially in irregular or hilly fields, often result in waste — wasted fuel, seed, spray, and time. Optimised path planning can cut that waste significantly, and even a 7–10% gain can translate to \$5–15 per hectare per operation, depending on fuel and input prices.

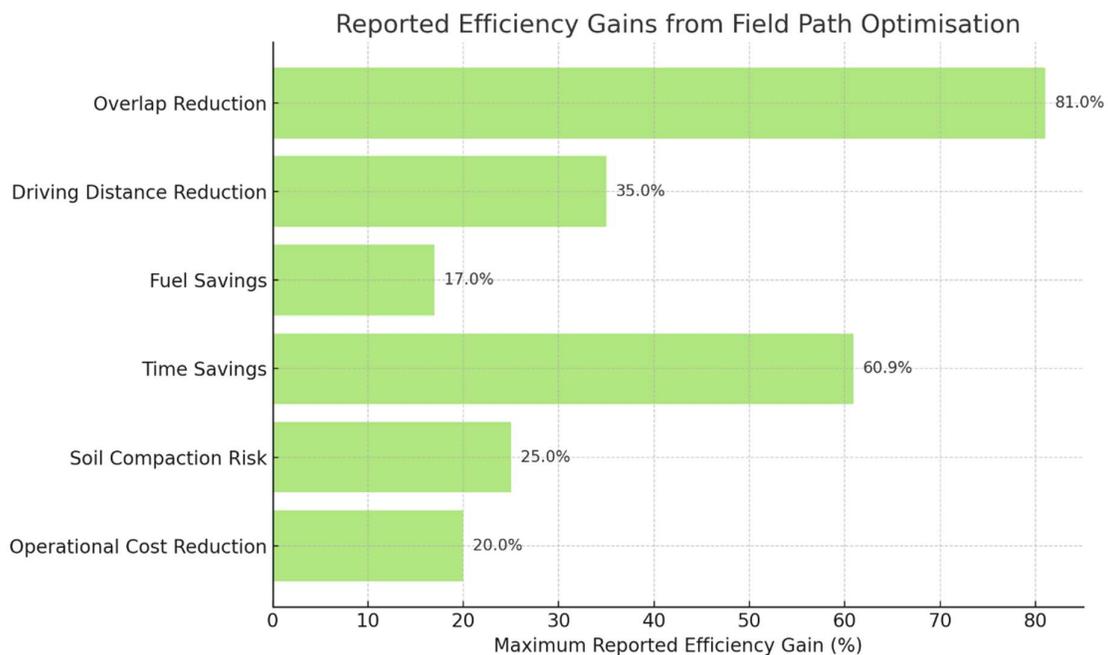


Figure 1: Maximum Reported Benefits in Peer-Reviewed Papers

TYPES OF SAVINGS

Savings and cost reductions resulting from optimal path planning due to:

- Driving less distance to cover the same area, reducing:
 - Fuel consumption
 - Labour hours
 - Machine wear and tear
 - Oil consumption
 - Parts
 - Repairs / servicing
 - Risk of unplanned downtime
- Limiting implement overlap, reducing seed, fertiliser and/or chemical application to the same area multiple times.

The cumulative savings can be aggregated in several ways, with the focus of this paper being:

- By operation – a discrete field activity which has a known cost to complete over a given area (per hectare or per acre)
- By crop – a full sequence of operations to produce the target crop (per hectare or per acre)

We can use these metrics to determine the payback period of an individual path plan (one operation), or one applied to a full season (2-4 path plans).

SAVINGS BY OPERATION

For this example, we consider only the cost of fuel, oil and machine wear and tear. This is conservative in two ways:

- We ignore any reduction in labour costs. This assumes the farmer will perform the work themselves, or by a full-time farm hand that would be paid for their time (to complete other tasks) regardless.
- We ignore potential reduction in application cost for operations that apply seed, fertiliser and/or chemicals. This assumes precision agriculture enabled equipment is being used with a GPS turning on/off (for example) spray nozzles when overlapping. This is unlikely for smaller farm operations that cannot justify the cost of such equipment.

Additionally, this allows the use of a fixed reduction rate of 7% (lower range per Table 1).

Overlap reductions (if any) reduce input costs, which are crop dependent.

Iowa State University's Extension program [Reference 1] provide annual costs (US\$/acre) of fuel, oil and machine wear for broadacre farming operations in Iowa. These have been extracted and converted into multiple currencies per hectares as a representative cost. Finally, the 7% representative saving has been provided. See Table 2.

Table 2: Fuel, Oil and Wear Cost per Operation

| Operation | Variable Cost (Fuel, Oil, Wear) | | | Variable Saving (7%) (Fuel, Oil, Wear) | | |
|-------------------------------|------------------------------------|---------|--------|---|---------|--------|
| | AU\$/ha | US\$/ha | GB£/ha | AU\$/ha | US\$/ha | GB£/ha |
| <i>Residue and Tillage:</i> | | | | | | |
| Chop stalks | 27 | 17 | 13 | 1.9 | 1.2 | 0.9 |
| Rotary mower | 23 | 15 | 11 | 1.6 | 1.1 | 0.8 |
| Subsoiling (V-ripper) | 42 | 27 | 20 | 3.0 | 1.9 | 1.4 |
| Moldboard plow | 53 | 34 | 25 | 3.7 | 2.4 | 1.8 |
| Chisel plow | 22 | 14 | 10 | 1.5 | 1.0 | 0.7 |
| Chisel plow, NH3 applicator | 38 | 25 | 18 | 2.7 | 1.7 | 1.3 |
| NH3 applicator | 25 | 16 | 12 | 1.7 | 1.1 | 0.8 |
| Offset disk | 18 | 12 | 9 | 1.3 | 0.8 | 0.6 |
| Tandem disk | 19 | 13 | 9 | 1.4 | 0.9 | 0.7 |
| Peg tooth harrow | 8 | 5 | 4 | 0.6 | 0.4 | 0.3 |
| Rotary hoe | 6 | 4 | 3 | 0.5 | 0.3 | 0.2 |
| Cultivator | 13 | 8 | 6 | 0.9 | 0.6 | 0.4 |
| Field cultivator | 15 | 10 | 7 | 1.1 | 0.7 | 0.5 |
| Disk/field cultivator | 15 | 10 | 7 | 1.0 | 0.7 | 0.5 |
| Strip tiller | 17 | 11 | 8 | 1.2 | 0.8 | 0.6 |
| <i>Planting:</i> | | | | | | |
| Grain drill | 22 | 15 | 11 | 1.6 | 1.0 | 0.8 |
| Broadcast seeder | 9 | 6 | 5 | 0.7 | 0.4 | 0.3 |
| Planter | 27 | 17 | 13 | 1.9 | 1.2 | 0.9 |
| No-till planter | 35 | 23 | 17 | 2.4 | 1.6 | 1.2 |
| No-till drill | 42 | 27 | 20 | 3.0 | 1.9 | 1.4 |
| <i>Fertiliser / Spreader:</i> | | | | | | |
| Sprayer - Fertiliser | 11 | 7 | 5 | 0.8 | 0.5 | 0.4 |
| Sprayer - Herbicide | 11 | 7 | 5 | 0.8 | 0.5 | 0.4 |
| Sprayer - Pesticide | 11 | 7 | 5 | 0.8 | 0.5 | 0.4 |
| Sprayer/disk | 16 | 11 | 8 | 1.1 | 0.7 | 0.6 |
| Bulk fertiliser spreader | 9 | 6 | 4 | 0.6 | 0.4 | 0.3 |
| <i>Harvesting:</i> | | | | | | |
| Silage harvester | 173 | 112 | 83 | 12.1 | 7.9 | 5.8 |
| Forage chopper | 75 | 49 | 36 | 5.3 | 3.4 | 2.5 |
| Combine corn | 37 | 24 | 18 | 2.6 | 1.7 | 1.3 |
| Combine soybeans | 23 | 15 | 11 | 1.6 | 1.0 | 0.8 |
| Combine small grain | 17 | 11 | 8 | 1.2 | 0.8 | 0.6 |

The potential savings of each operation is simply:

[Field size] ha x [Variable saving] AU\$/ha x [Number of times in a season]

The South Australian Grain Industry Trust (SAGIT) [Reference 2] provide a list of the expected type and number of field operations to produce a given crop in the South Australian growing area. These have been extracted and are listed in Table 3.

Table 3: Field Operations per Crop Type

| Crop | Seeding | Spraying | Harvest | Rolling | Spreading | Mowing |
|-----------------------------|---------|----------|---------|---------|-----------|--------|
| | # | # | # | # | # | # |
| <i>Wheat</i> | 1 | 6 | 1 | | 2 | |
| <i>Durum</i> | 1 | 5 | 1 | | 2 | |
| <i>Malt Barley</i> | 1 | 5 | 1 | | 2 | |
| <i>Feed Barley</i> | 1 | 5 | 1 | | 2 | |
| <i>Milling Oats</i> | 1 | 6 | 1 | | 2 | |
| <i>Triticale</i> | 1 | 6 | 1 | | 2 | |
| <i>Export Oaten Hay</i> | 1 | 6 | | 1 | | 1 |
| <i>Vetch</i> | 1 | 8 | 1 | 1 | | |
| <i>Lupins</i> | 1 | 8 | 1 | | | |
| <i>Lentils</i> | 1 | 10 | 1 | 1 | | |
| <i>Lentils IMI Tolerant</i> | 1 | 10 | 1 | 1 | | |
| <i>Field Peas</i> | 1 | 9 | 1 | 1 | | |
| <i>Faba Beans</i> | 1 | 10 | 1 | | | |
| <i>Kabuli Chickpeas</i> | 1 | 10 | 1 | | | |
| <i>Canola Clearfield</i> | 1 | 11 | 1 | | 2 | |
| <i>Canola Conventional</i> | 1 | 11 | 1 | | 2 | |
| <i>Canola RoundUp Ready</i> | 1 | 8 | 1 | | 2 | |
| <i>Canola Tri Tolerant</i> | 1 | 11 | 1 | | 2 | |
| <i>Sown Pasture</i> | 1 | 4 | | | | |
| <i>Self Regen Pasture</i> | | 4 | | | 1 | |

With these two data sets, we can consider an example field of 20 hectares undergoing no-till seeding, spraying, fertilising and harvesting to produce feed barley. We can determine the savings of fuel, oil and wear as follows:

- No-till seeding saving = 20 ha x 1.2 AU\$/ha x 1 = AU\$ 24
- Spraying saving = 20 ha x 0.4 AU\$/ha x 5 = AU\$ 40
- Fertilising saving = 20 ha x 0.3 AU\$/ha x 2 = AU\$ 12
- Harvesting saving = 20 ha x 0.6 AU\$/ha x 1 = AU\$ 12
- Total = AU\$ 88.

At the upper range of expectations (15% reduction), the savings increase to:

- No-till seeding saving = AU\$ 24 x 15% / 7% = AU\$ 51
- Spraying saving = AU\$ 40 x 15% / 7% = AU\$ 86
- Fertilising saving = AU\$ 12 x 15% / 7% = AU\$ 26
- Harvesting saving = AU\$ 12 x 15% / 7% = AU\$ 26
- Total = AU\$ 189.

Labour cost and chemical, seed or fertiliser reductions raise these further.

SAVINGS BY CROP

For this example, we can separately consider the cost of:

- Fuel, oil and machine wear and tear.
- Seed, fertiliser and chemicals.

As before, we ignore any reduction in labour costs. This assumes the farmer will perform the work themselves, or by a full-time farm hand that would be paid for their time (to complete other tasks) regardless.

We once again use a fixed reduction rate of 7%. Overlap reductions cannot use the same rate when determining the potential seed, fertiliser and chemical reduction. This is because driving 7% less does not directly translate to 7% less overlap. Our own research [Reference 3] suggests an overlap reduction of 0.7% to 8.2% with a median of 2% when using a suboptimal plan. This increases where no planning has been conducted. We will use the median for our example.

SAGIT [Reference 2] provide a list of the fuel, oil, machine wear and tear, seed, fertiliser and chemical input costs to produce a given crop in the South Australian growing area. These have been extracted and are listed in Table 4 and Table 5 respectively.

The 7% representative saving on fuel, oil and wear has been provided in Table 4.

Table 4: Fuel, Oil and Wear Cost per Crop

| Crop | Variable Cost | | Variable Saving (7%) |
|-----------------------------|---------------|---------------|----------------------|
| | Fuel & Oil | Machinery W&T | Fuel, Oil & W&T |
| | AU\$/ha | AU\$/ha | AU\$/ha |
| <i>Wheat</i> | 21 | 32 | 3.72 |
| <i>Durum</i> | 20 | 30 | 3.51 |
| <i>Malt Barley</i> | 20 | 30 | 3.51 |
| <i>Feed Barley</i> | 20 | 30 | 3.51 |
| <i>Milling Oats</i> | 21 | 32 | 3.72 |
| <i>Triticale</i> | 21 | 32 | 3.72 |
| <i>Export Oaten Hay</i> | 14 | 20 | 2.35 |
| <i>Vetch</i> | 28 | 53 | 5.67 |
| <i>Lupins</i> | 25 | 42 | 4.67 |
| <i>Lentils</i> | 30 | 56 | 6.08 |
| <i>Lentils IMI Tolerant</i> | 30 | 56 | 6.08 |
| <i>Field Peas</i> | 29 | 55 | 5.88 |
| <i>Faba Beans</i> | 27 | 46 | 5.08 |
| <i>Kabuli Chickpeas</i> | 27 | 46 | 5.08 |
| <i>Canola Clearfield</i> | 26 | 42 | 4.75 |
| <i>Canola Conventional</i> | 26 | 42 | 4.75 |
| <i>Canola RoundUp Ready</i> | 23 | 59 | 5.74 |
| <i>Canola Tri Tolerant</i> | 26 | 42 | 4.75 |
| <i>Sown Pasture</i> | 8 | 11 | 1.34 |

The potential savings of each operation is simply:

[Field size] ha x [Variable saving] AU\$/ha

Let us re-consider the previous example of a 20 hectare field producing feed barley with the standard 7% rate. We can determine the savings of fuel, oil and wear as follows:

- Feed barley saving = 20 ha x AU\$ 3.51 = AU\$ 70.2

At the upper range of expectations (15% reduction), the savings increase to:

- Feed barley saving = AU\$ 70.2 x 15% / 7% = AU\$ 150.4

The 2% representative saving on seed, fertiliser and chemicals has been provided in Table 5.

Table 5: Seed, Fertiliser and Chemical Cost per Crop

| Crop | Variable Cost | | | Variable Saving (2%) |
|----------------------|------------------|-----------------------|----------------------|--|
| | Seeds AU\$/ha | Fertiliser AU\$/ha | Chemicals AU\$/ha | Seeds, Fertiliser & Chemicals AU\$/ha |
| Wheat | 86 | 246 | 155 | 9.74 |
| Durum | 121 | 245 | 87 | 9.06 |
| Malt Barley | 105 | 237 | 125 | 9.34 |
| Feed Barley | 92 | 237 | 112 | 8.82 |
| Milling Oats | 58 | 203 | 62 | 6.46 |
| Triticale | 52 | 183 | 84 | 6.38 |
| Export Oaten Hay | 49 | 215 | 79 | 6.86 |
| Vetch | 39 | 85 | 139 | 5.26 |
| Lupins | 65 | 85 | 135 | 5.7 |
| Lentils | 90 | 64 | 215 | 7.38 |
| Lentils IMI Tolerant | 75 | 64 | 232 | 7.42 |
| Field Peas | 122 | 85 | 144 | 7.02 |
| Faba Beans | 91 | 85 | 230 | 8.12 |
| Kabuli Chickpeas | 145 | 85 | 257 | 9.74 |
| Canola Clearfield | 80 | 236 | 226 | 10.84 |
| Canola Conventional | 81 | 236 | 205 | 10.44 |
| Canola RoundUp Ready | 114 | 236 | 153 | 10.06 |
| Canola Tri Tolerant | 95 | 217 | 218 | 10.6 |
| Sown Pasture | 28 | 85 | 66 | 3.58 |

The potential savings of each operation is simply:

[Field size] ha x [Variable saving] AU\$/ha

The information in Table 5 is generally independent of economies of scale, however the benefit may be overstated if:

- Precision farming equipment is being used that can ignore overlapping areas

- Artificial intelligence is identifying individual weeds to spray herbicide
- Farmers are using certain techniques, such as co-planting fertiliser with seed or producing their own seed
- Other such practices not mentioned which reduce product input.

The benefit may be significantly understated however, if:

- Large equipment is used in small fields, with potential for significant overlap
- Applying to non-Australian fields. This data is for low rainfall (400mm), low yield areas where applying additional product for high intensity does not make commercial sense.
- Operators are unable to stop product application directly at the boundary of previous placement, or make unnecessary turns with the applicator 'on'
- No path planning has been applied, and overlap is haphazard.

Product costs will vary each year and may influence in either direction.

Sticking with the same example of a 20 hectare field producing feed barley we can determine the potential savings of seed, fertiliser and chemical from reduced overlap as follows:

- Feed barley saving = 20 ha x AU\$ 8.82 = AU\$ 176.4

This is double the prospective saving from the 7% fuel, oil and machinery wear and tear and on par with the 15% rate.

RETURN ON INVESTMENT

Above, we considered two methods for determining a representative savings rate using optimal path planning at 7% and 15% potential reduction in fuel, oil and machinery usage. The Savings By Crop (AU\$ 70 / 150) method had slightly lower estimates than when calculated using the Savings By Operation (AU\$ 88 / 189). This is likely due to the geographical nature of the data and average farm sizes:

- The latter used Australian data (Table 4) which predicts a slightly lower benefit than the US data (Table 3).
- We expect this is due to larger equipment, on average, in South Australia compared to Iowa.
- A typical broadacre farm in Iowa is 140 hectares compared to 520 hectares in South Australia.

A generalisation may be made that the potential cost saving per hectare improves for smaller farms, as larger farms benefit economies of scale [Reference 4]. Both methods are considered to be reasonable approximations, but individual farms and locations will vary.

We now use these figures to determine the Return on Investment (ROI) for using our field path planning service considering only the potential savings of fuel, oil and machinery wear and tear. Four field operations cost AU\$ 40 for the first and AU\$ 25 for each successive plan:

- No-till seeding plan = AU\$ 40
- Spraying plan = AU\$ 25
- Fertilising plan = AU\$ 25
- Harvesting plan = AU\$ 25
- Total = AU\$ 115.

ROI is therefore:

- 7% saving case = $\text{AU\$ } 88 / \text{AU\$ } 115 = 76\%$
- 15% saving case = $\text{AU\$ } 189 / \text{AU\$ } 115 = 164\%$.

The number of seasons required to pay back the service:

- 7% saving case = $100\% / 76\% = 1.3$ seasons
- 15% saving case = $100\% / 164\% = 0.6$ seasons.

Essentially, this field example would pay for itself in fuel, oil and maintenance reductions within the first or second season. Labour costs would improve this further.

Using this same set of operations, we can plot different field sizes to determine the potential savings, ROI and corresponding payback period. Refer to Figure 2 and Figure 3 which assume the more conservative 7% savings rate. The figures show that a field greater than 27 hectares anticipates the service to be fully offset within the first season, 13-26 hectares in 2 seasons and 5-12 hectares in under 5 years.

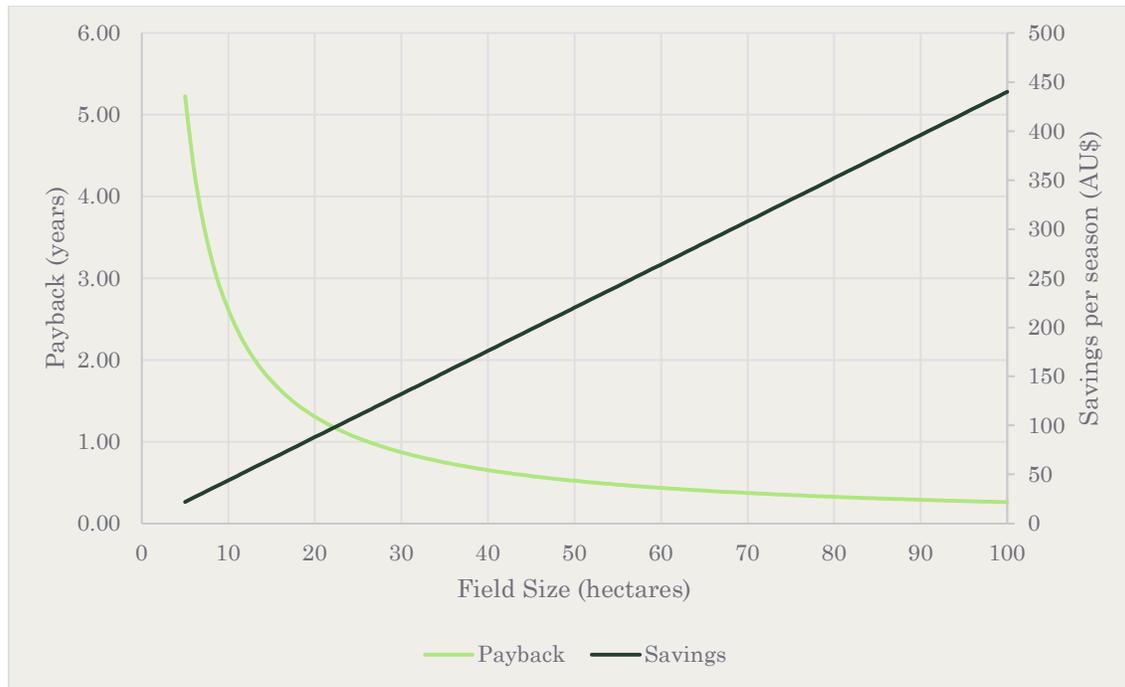


Figure 2: Fuel, Oil and Wear & Tear Savings and FieldPath Service Payback per Season of Operations

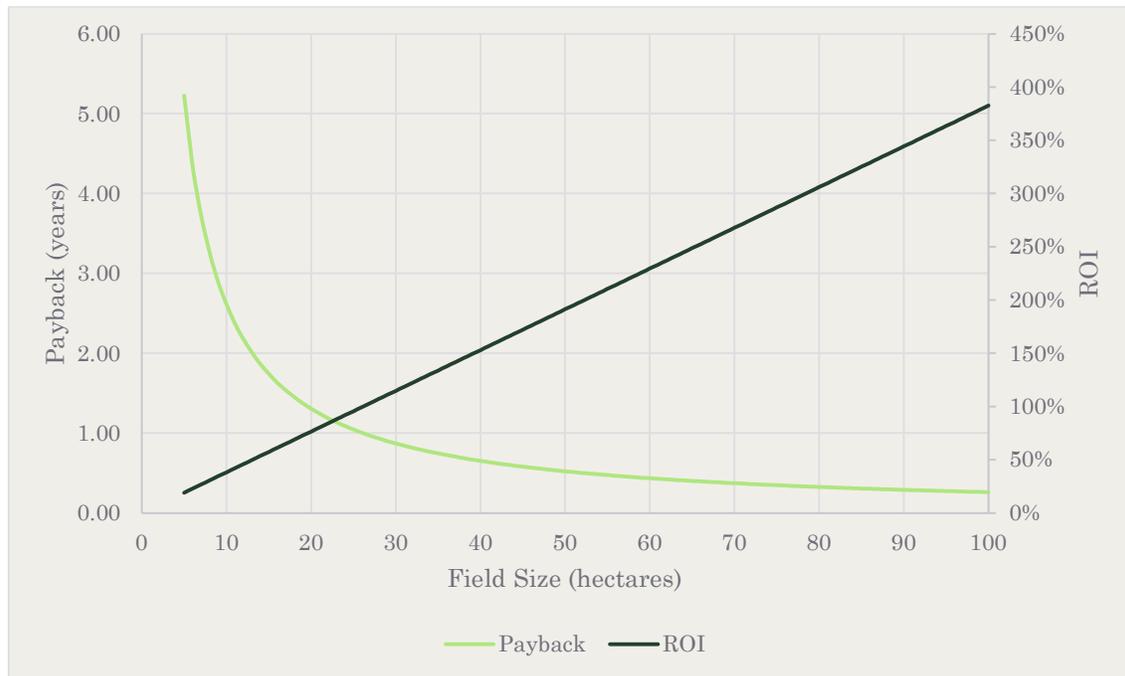


Figure 3: Fuel, Oil and Wear & Tear ROI and FieldPath Service Payback per Season of Operations

If field dimensions are known in acres, then convert from acres to hectares using the following:

$$[\text{Field size}] \text{ hectares} = [\text{Field size}] \text{ acres} \times 0.405 \text{ ha/acre}$$

We now consider the combined benefit of fuel, oil, wear & tear, seed, fertiliser and chemicals. The Feed Barley case is used as this is near to the median.

ROI is:

- 7% saving case = $(\text{AU\$ } 88 + \text{AU\$ } 176.4) / \text{AU\$ } 115 = 233\%$
- 15% saving case = $(\text{AU\$ } 189 + \text{AU\$ } 176.4) / \text{AU\$ } 115 = 320\%$.

The number of seasons required to pay back the service:

- 7% saving case = $100\% / 233\% = 0.43$ seasons
- 15% saving case = $100\% / 320\% = 0.31$ seasons.

Essentially, this field example would pay for itself in fuel, oil, maintenance, seed, fertiliser and chemical reductions within the first. Labour costs would improve this further.

Using this same set of conditions and crop, we can plot different field sizes to determine the potential savings, ROI and corresponding payback period. Refer to Figure 4 and Figure 5 which assume the more conservative 7% savings rate for the fuel, oil and wear & tear component. The figures show that a field greater than 9 hectares anticipates the service to be fully offset within the first season, 5-8 hectares in 2 seasons and 2-4 hectares in under 5 years.

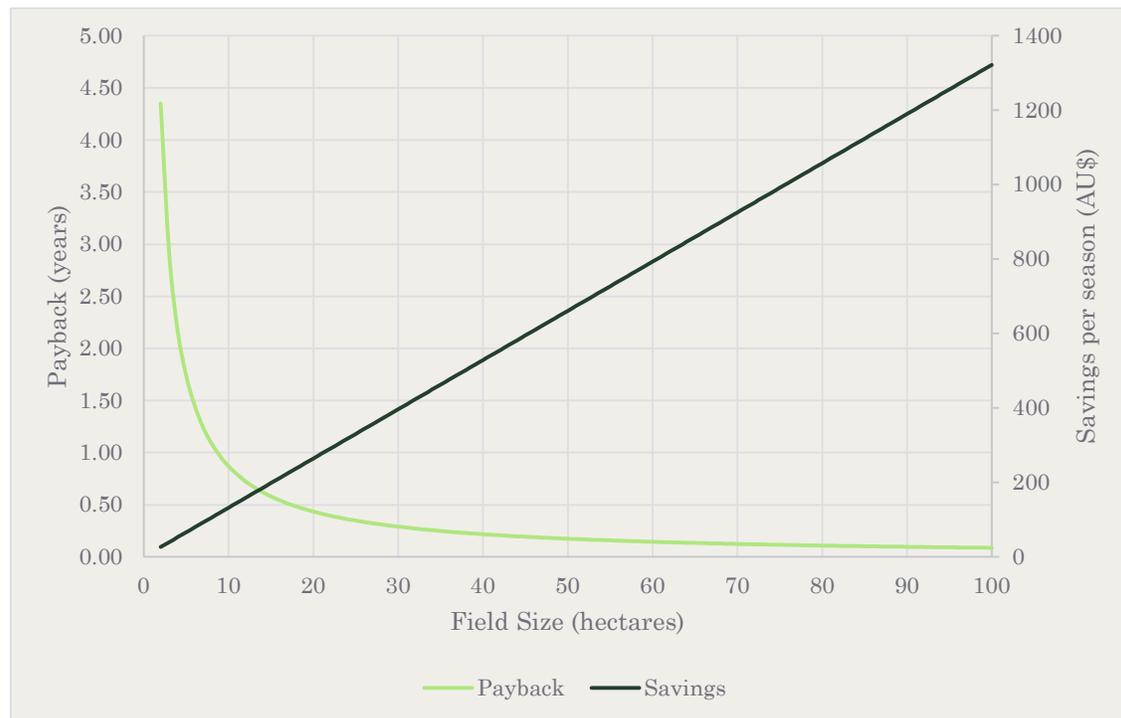


Figure 4: Fuel, Oil, Wear & Tear, Seed, Fertiliser, Chemical Savings and FieldPath Service Payback per Season of Operations

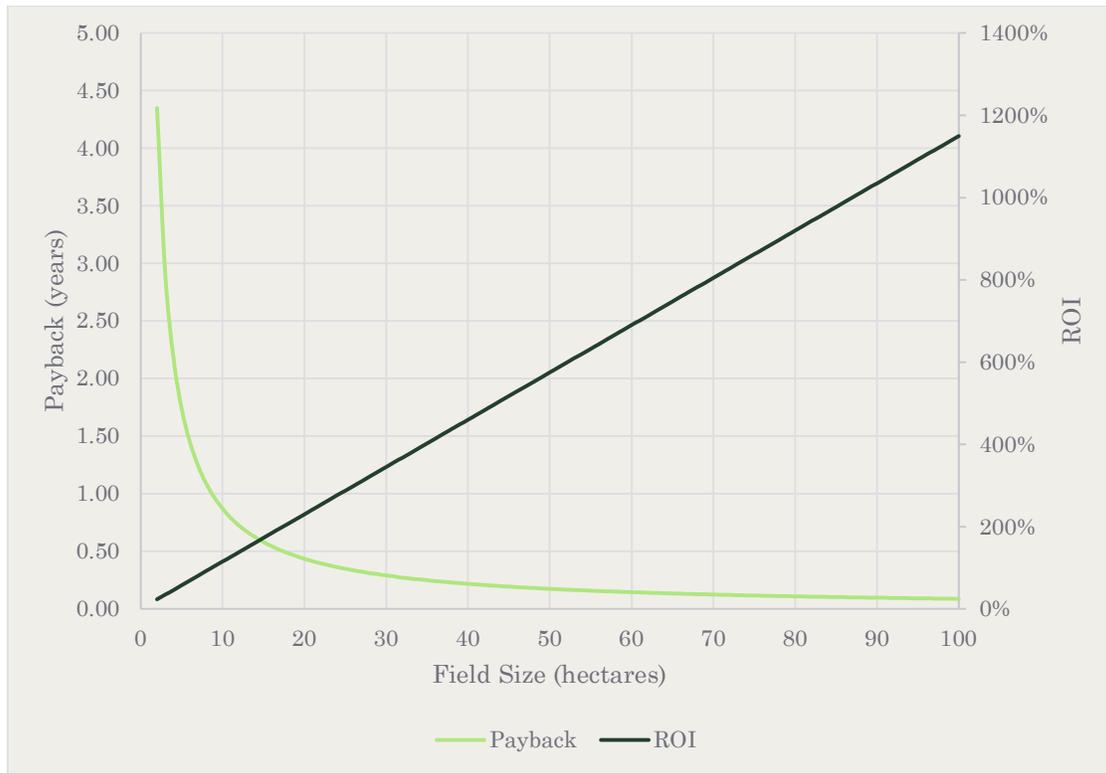


Figure 5: Fuel, Oil, Wear & Tear, Seed, Fertiliser, Chemical ROI and FieldPath Service Payback per Season of Operations

CONCLUSION

Optimised field path planning is a low-cost, high-impact way to improve farm efficiency. Published studies confirm that better path geometry reduces distance, turns, overlap, and input waste—outcomes that directly improve profitability and sustainability.

The financial modelling in this paper demonstrates how savings of just 7% in fuel, wear, and inputs can recoup the cost of FieldPath's services in one or two seasons. At higher levels of optimisation, or when multiple operations are included, the payback is even faster.

Importantly, these benefits are not limited to large, technology-heavy farms. Small and mid-size operations with basic (or no) GPS capability can realise immediate value—especially in irregular or constrained fields where traditional driving patterns are least efficient.

By offering an accessible, per-field service with clear cost-benefit transparency, FieldPath enables farmers to unlock measurable returns with minimal disruption. With rising input prices and greater pressure to improve margins, this kind of planning represents a practical and proven opportunity to operate smarter.

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DISCLAIMER

This report and supporting materials have been prepared by FieldPath using available field boundary data, client-supplied inputs, published research and internally validated planning tools. The purpose of this information is to assist with operational planning for machinery coverage efficiency and should be considered a general guide only.

All estimated savings in fuel, distance, input usage, or cost are based on typical machine parameters, assumed operating conditions, and published research averages. Actual outcomes may vary due to factors such as soil type, topography, machine configuration, operator practices, weather, input application variability and location. FieldPath does not guarantee specific financial or agronomic results and does not replace the need for professional agronomic, technical, or financial advice.

Field boundaries interpreted from maps, global imaging, or third-party sources may be generalised or smoothed and are not suitable for compliance or survey purposes. Coverage paths are modelled for geometric efficiency and do not account for crop type, soil constraints, or environmental restrictions unless expressly noted.

By using this service, the client accepts responsibility for implementing any recommendations and acknowledges that all decisions relating to machine operations and input applications remain solely with the operator or farm manager.