Return on Investment for a Potato Producer

Overview: Windiana Farms

Windiana Farms is a family-owned operation in southern Alberta, Canada, founded by Mike and Cathy Wind in 1989. Over the years, the farm has grown in size and welcomed two sons, Jeremy and Kevin, as partners. Their core crops include potatoes, cereals, and forage—and they're always on the lookout for innovative practices to improve yields, cut costs, and maintain quality.

Photograph of Jeremy Wind

For the last five years, Jeremy Wind has been incorporating TLC Products' biologicals on his farm, using a data-driven approach to **cut back on other inputs** without sacrificing performance. Frustrated by rising costs and stagnant yields, he decided to make soil health a priority and soon saw surprising benefits—including **improved storage stability**, which had become a pressing issue.

Turning a Barren Field into Cropping Success

One of the earliest successes was a field historically plagued by alkali patches where nothing seemed to grow. Jeremy applied ACF heavily in this non-productive area, leveraging **phosphorus solubilization** to counter the soil's poor fertility. The result? A healthy stand of potatoes in a spot that had always been barren.

Photo shows a former alkali patch now successfully cropped with ACF's help

Seeing this breakthrough fueled Jeremy's enthusiasm for biologicals. He continued applying **ACF-SR** (soil and root formula) and soon discovered even more advantages—like the dramatic difference in spoilage rates across stored potatoes that were grown with and without the product.

Less Spoilage, More Savings

In 2020, Jeremy's skid-steer operator noticed that half the potatoes in storage had spoilage, while the other half looked nearly perfect. After digging through records, Jeremy realized the **ACF-SR-treated** spuds were the ones that stored so cleanly, affirming his decision to pursue soil-health-focused farming.

Then came the next logical step: cutting back on **synthetic inputs**. Year by year, Jeremy reduced his fertilizer rates—ultimately hitting a **25% fertilizer reduction** in 2023 across his entire farm, with no loss in yield or crop quality. This not only saved on input costs but made his operation one of the only potato farms in the region that doesn't need a mid-season top dress.

ACF-SRP for Stress Resistance

Looking to push results further, Jeremy began trialing **ACF-SRP**. While known primarily for powerful **P solubilization**, SRP (Stress-Resistant Plants) also helps crops handle abiotic stresses like drought and disease. Jeremy applied SRP through pivot irrigation on split fields of potatoes, wheat, and peas:

- **Wheat & Peas**: Zero disease observed, meaning **no fungicide** was required.
- **Potatoes**: 10% fewer small tubers, a 10% higher count per pound, and a **2.5-ton/acre yield increase**.

These results underscore how targeted biologicals can **enhance plant health** and push performance.

ROI: Data-Driven Decisions Pay Off

Jeremy's story highlights the long-term payoff of focusing on soil health. Through careful monitoring of yield, storage quality, and cost data, he's validated ACF's ability to reduce synthetic inputs while maintaining or increasing output. The comparisons below show how Windiana Farms' input costs stack up against three neighboring farms not using ACF products:

	Applied N (lbs)	N $/Acre	Applied P (lbs)	P $/Acre	Applied K (lbs)	K $/Acre
Grower 1	241	72	102	102	80	48
Grower 2	194	58	100	100	80	48
Grower 3	265	80	100	100	100	60
Avg Nearby	233	70	101	101	87	52
Windiana	149	45	67	67	64	39

Key Takeaway: Windiana Farms spent roughly **one-third less** on N, P, and K.

Next, compare total inputs, fungicide passes, and yield:

	Fungicide Runs	Fungicide $/Acre	ACF-SR (gal/A)	ACF-SR $/Acre	ACF-SRP (gal/A)	ACF-SRP $/Acre	Yield (Ton/A)	Total Cost $/Acre
Grower 1	4	100	0	0	0	0	22	332
Grower 2	4	100	0	0	0	0	19	306
Grower 3	6	150	0	0	0	0	19.5	389
Avg Nearby	5	117	0	0	0	0	20	342
Windiana	1.6	39	2	36	1.6	39	21	265

- **N, P, K Cost** at Nearby Farms: $258/acre
- **N, P, K Cost** at Windiana Farms: $151/acre
- **Total Input Cost** at Nearby Farms: $342/acre
- **Total Input Cost** at Windiana Farms: $265/acre

That's a **22% reduction** in total input costs, plus a higher yield and better quality (fewer "smalls," superior storage). The data speaks for itself.

Looking Ahead

Though this transformation didn't happen overnight, and in fact took 5 years to achieve, Jeremy's journey proves that focusing on soil health, coupled with strategic use of TLC's biological products, can **lower costs** and **improve yields**. The synergy between agronomic data and innovative microbial solutions keeps offering new insights every season.

Want to learn more? Jeremy welcomes questions from other growers. If you'd like to connect with him directly, contact TLC Products, Inc. or our Canadian partner, AdvancedAg. Jeremy is eager to see more producers farm sustainably and improve their bottom line in the process.

In Summary

- **5+ years** using ACF products
- **Revived historically unproductive land**
- **Improved storage stability**—less spoilage
- **Cut fertilizer by 25%** while maintaining top yields

- **Reduced fungicide passes** by more than half
- **Increased ROI**—stronger plants, healthier margins

Jeremy's success at Windiana Farms is a testament to what's possible when you **prioritize soil health** and fully leverage **biology-driven inputs** for your crops.