THE POWER OF THE PRODUCTIVE ACRE

Reimagining Agricultural Viability In The Treasure Valley

ABSTRACT

Rapid growth in Idaho's Treasure Valley is placing increasing pressure on agricultural land, often forcing a choice between farmland preservation and residential development. This paper discusses the productive acre model, a framework that integrates housing with a biointensive, small-scale food production, using systems such as raised beds, orchards, and greenhouses. Project Farmland is developing this concept as a nonprofit pilot community to demonstrate how residential neighborhoods can maintain meaningful agricultural productivity while supporting modern family life.

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1. Small Farms, Big Dreams

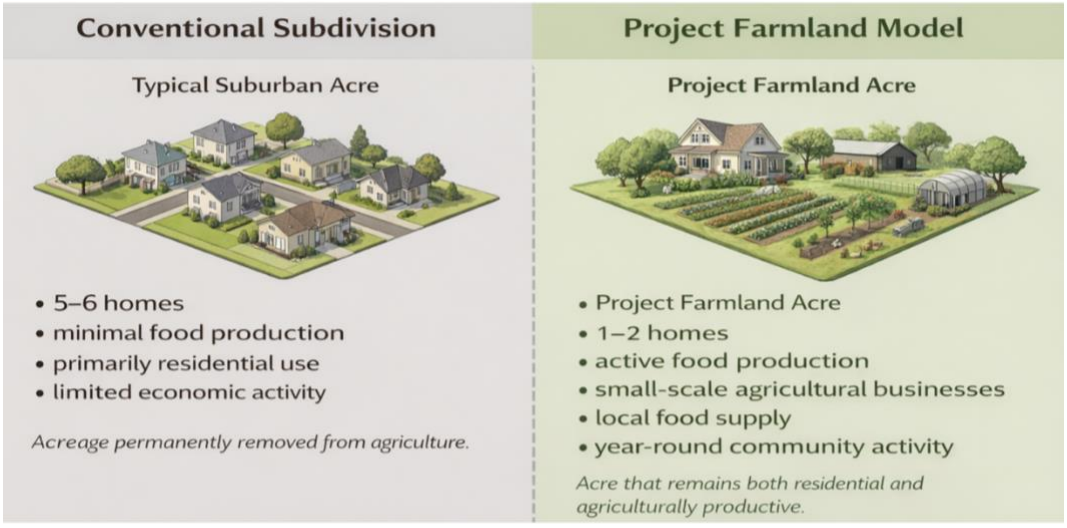
For several decades in the Treasure Valley, land use has often been framed as a simple choice: farmland or subdivision. Either land remained in large agricultural parcels, or it was converted into neighborhoods of five to six homes per acre. Project Farmland seeks to demonstrate that a third path exists.

Rather than treating agriculture and housing as opposing forces, Project Farmland integrates them. The result is not a traditional subdivision, but a community of productive, modern homesteads—homes designed to support both living and small-scale agricultural production.

Project Farmland is not simply a housing project. It is an economic engine. By empowering families to become producers rather than solely consumers, Project Farmland creates a community that is more resilient, more locally productive, and ultimately more sustainable for the region.

As a nonprofit initiative, Project Farmland is designed to make small-scale homesteading attainable for everyday families**.** The goal is not to create luxury estate properties, but to demonstrate that productive land stewardship can remain within reach of working households. For generations in the Treasure Valley, an acre of land represented opportunity for ordinary families—not just large agricultural operations or high-end estates. Project Farmland seeks to preserve and modernize that tradition.

Unlike conventional subdivisions that simply convert farmland into housing, Project Farmland allows every acre to remain economically productive, supporting both homes and agriculture at the same time.



Growth and agriculture do not have to compete for land they can strengthen each other

2. Rethinking Agricultural Productivity: The Changing Economics of Modern Agriculture

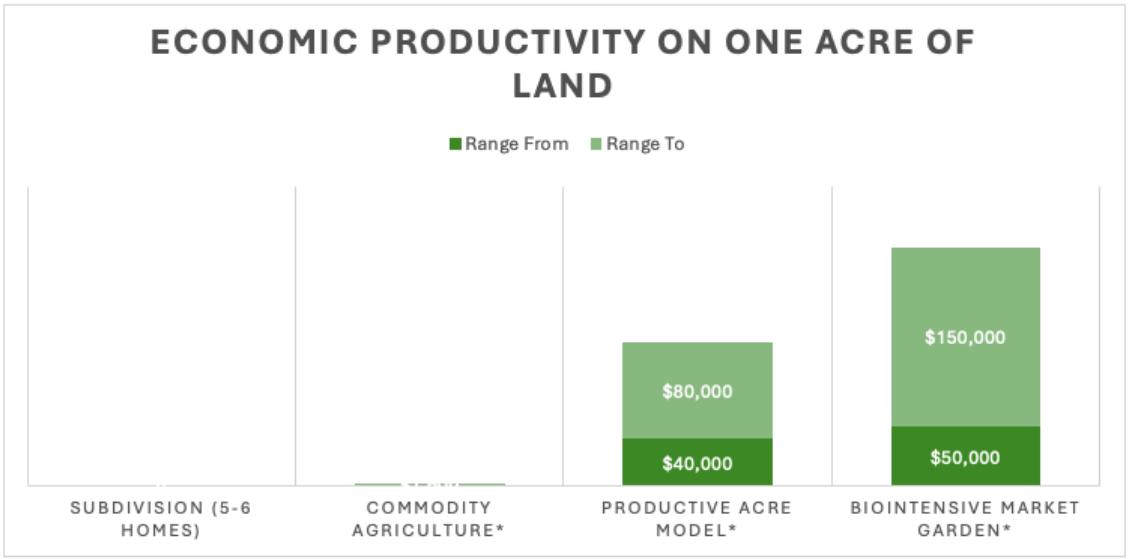
Traditional agriculture in Idaho has historically been built around the commodity model-thousands of acres planted with crops such as sugar beets, corn, or wheat and integrated into global supply chains.

Within that framework, a half-acre or even a full acre may appear insignificant. However, a growing body of evidence from farms across the United States demonstrates that profitability is not strictly tied to acreage, but to management practices, soil health, and proximity to markets.

A new agricultural model—often referred to as bio-intensive or hyper-local agriculture has shown that small plots of land can produce extraordinary yields when managed properly.

One of the best-known examples is Jean-Martin Fortier, author of The Market Gardener. Operating on just 1.5 acres of cultivated land, Fortier's farm consistently generates more than $150,000 in annual revenue, with profit margins exceeding 40%.

Through techniques such as permanent raised beds, high-density planting, precise crop rotation, and careful soil management, small farms can produce significantly more food per square foot than traditional tractor-tilled fields.



Subdivision Homes $0 revenue, Commodity Agriculture $1,000 - $1,500 per acre estimated. Subdivision land produces no agricultural output. Commodity agriculture revenue estimates based on typical Midwestern grain returns. Market garden estimates based on published data from small-scale farms in North America.

3. High Performance Small Farm Models

Several highly successful farms across North America demonstrate the economic potential of this approach:

Curtis Stone — The Urban Farmer
Acreage: approximately ⅓ acre across multiple plots
Model: high-rotation “quick crops” such as radishes, salad greens, and microgreens.
Result: Stone famously generated $75,000 in gross revenue in a single season on just one-third of an acre.

Singing Frogs Farm — Paul & Elizabeth Kaiser
Acreage: approximately 3 acres (with their model easily scalable to 1 acre).
Model: no-till agriculture focused on soil biology and ecosystem health.
Result: Their farm consistently produces over $100,000 per acre annually, among the highest yields in the United States.

Neversink Farm — Conor Crickmore
Acreage: approximately 1.5 acres.
Model: highly optimized systems and specialized tools that maximize labor efficiency.
Result: One of the highest-grossing small farms in the country, generating $350,000+ annually from a compact footprint.

Urban Roots — Troy Griepentrog
Acreage: roughly 1 acre.
Model: a combination of high-value vegetable production and community engagement through “You-Pick” experiences.
Key insight: an acre located near a city often has ten times the economic potential of an acre in a remote location because of direct-to-consumer access.
This proximity advantage is particularly relevant for Project Farmland’s location within the Treasure Valley.

4. Shared Infrastructure: The Multiplier Effect

Many small farms struggle not because of poor production, but because of high overhead costs. Equipment such as:

- tractors
- cold storage facilities
- delivery vehicles
- commercial food processing equipment

These major capital purchases can quickly exceed what a single acre of production can reasonably support.

Project Farmland addresses this challenge through shared infrastructure.
Facilities such as:

- The Barn marketplace
- commercial grow tunnels
- professional processing equipment
- shared storage and refrigeration

These shared resources will allow residents to operate as part of a coordinated agricultural network rather than isolated small farms.

Shared Asset	Estimated Cost	Project Farmland Shared Resources
Industrial Grow Tunnels (Research + Production	$90,000 - $120,000	Resident & reserach access
Utility Tractors	$70,000 - $120,000	Maintained on-site for resident use
Skid Steers / Compact Loaders	$50,000 - $80,000	Shared landscape & agricultural projects
Commercial Freeze Dryers	$30,000 - $45,000	Centralized in Barn processing hub
Commercial Kitchen & Cold Storage	$200,000 - $400,000	Certified value-added processing space
Agrivoltaic Solar Array	$300,000 - $500,000	Community energy offset & crop shade

By eliminating the traditional “overhead trap,” residents will be able to move beyond simply selling raw produce and instead create higher-value products, such as:

- freeze-dried fruits and vegetables
- specialty herbs and teas
- honey and bee products
- small-batch preserves

This approach creates an economic resilience for each homestead, providing multiple revenue streams and greater financial stability.

5. Project Farmland: A Pilot for the Modern Precision Homestead

To function successfully, these farmsteads must first and foremost be homes. Project Farmland's community design will carefully balance residential living with productive land use.

The Tiny Home Homestead

Approximately 8,700 square feet of land (appx 1/5 acre)
After accounting for:
• the tiny home footprint (400–800 sq ft)
• a two-car garage
• driveway and small yard
The family still retains over 5,500 square feet of productive land.

Within biointensive gardening systems, this space can support:
• multiple vegetable beds
• small fruit trees
• seed-saving areas
• herb production.

The Half-Acre Homestead

Approximately 21,780 square feet.
Even after accounting for a home, driveway, and modest yard space, families retain more than 16,000 square feet of workable soil. This scale supports meaningful production for both household consumption and local sales.

The One-Acre Homestead

Approximately 43,560 square feet.
After residential footprint and landscaping, residents retain more than 35,000 square feet of productive agricultural land.

At this scale, families can pursue diverse agricultural ventures including specialty crops, small livestock, orchards, or flower production.

6. The Project Farmland Economic Model

Project Farmland is not designed around the expectation that every resident will become a full-time farmer. Most residents will continue working in their existing professions across the Treasure Valley while participating in small-scale production on their land.

The Family First Revenue Model

Some families may simply grow food for their household, while others may generate supplemental income through specialty crops, flowers, honey, or preserved goods. For some, the homestead may even create the flexibility for one member of the household to spend more time at home managing the land - an option that many families with young children find especially appealing.

The Three Revenue Pillars

Pillar 1 — Internal Subsistence (The Grocery Offset)
The first portion of production supports the household itself. By growing nutrient-dense produce, fruit, and eggs, families may reduce their grocery costs by $4,000–$7,000 per year. This effectively becomes tax-free income while improving household food security.

Pillar 2 — Hyper-Local Surplus
Seasonal abundance naturally creates surplus. Excess produce may be sold through small roadside stands or neighborhood exchanges, reinforcing community culture and teaching entrepreneurship.

Children growing up in Project Farmland see firsthand how food production connects to work, value, and responsibility.

Pillar 3 — The Barn Aggregator
For higher-value crops and products, the community's central marketplace, The Barn will serve as an aggregation hub.

Products from our resident households can be combined to fulfill larger orders for:
• local restaurants
• farmers markets
• Treasure Valley CSA subscriptions.

A single half-acre plot might not supply a restaurant consistently, but a community of harvests pooled together can.

7. The Project Farmland CSA Model

By linking the Tiny Home, half-acre, and one-acre homesteads into a unified system, Project Farmland creates **market power** that individual growers could never achieve alone. Residents may choose to operate independently or participate in the Barn-Aggregated CSA.

The Barn-Aggregated CSA

Instead of each family managing their own customers, The Barn coordinates distribution. Produce from across the community—tomatoes, herbs, honey, berries, flowers, and preserved goods—is combined into diverse weekly boxes. This model provides subscribers with far greater variety than a single farm could offer.

Precision Harvest: Year-Round Revenue Tiers

Project Farmland's production cycle allows multiple seasonal offerings.

The Seedling Share (Spring)
Plant starts, soil amendments, and gardening supplies sold to households throughout the Treasure Valley. This allows the community to participate in year-round food production, even in Idaho's colder months.

The Harvest Share (Summer & Fall)
Weekly CSA boxes including:
• fresh produce
• eggs
• herbs
• "You-Pick" flower vouchers.

The Pantry Share (Winter)
Using shared grow tunnels and preservation tools such as commercial freeze dryers, Project Farmland can supply:
• dried herbs
• teas
• preserved fruits and vegetables
• shelf-stable pantry products.

8. A New Model for the Treasure Valley

Project Farmland represents more than a new approach to residential development. It offers a practical demonstration that farmland preservation, local food production, and thoughtful community growth can coexist.

As a nonprofit initiative, Project Farmland is not designed to maximize housing density or create luxury estates. Its purpose is to preserve productive land while making small-scale homesteading attainable for everyday families. By combining individual homesteads with shared resources—including grow tunnels, processing facilities, and the community marketplace at The Barn—the project allows residents to participate in meaningful food production while remaining connected to the broader Treasure Valley economy.

At the same time, Project Farmland is designed to engage the wider community. Educational programs, workshops, and partnerships with local institutions will invite neighbors, students, and families to reconnect with the land and better understand where their food comes from.

The broader implications of this model extend beyond a single community. Project Farmland is intended as a pilot—an example of how communities across Idaho might grow in ways that preserve farmland, strengthen local food systems, and cultivate both stewardship of the land and a renewed sense of community.

Small Farms.
Big Dreams.
Real Possibility.