

# Sustaining Agriculture

## Measuring Success

**A RESEARCH PROJECT OF THE URBAN LAND INSTITUTE**

All types of agriculture – whether large commercial agribusiness or small local farm - need sun, water, good land, and access to infrastructure. Urban growth through development often demands the same resources. This research focused on understanding existing local agriculture, how to encourage economically sustainable local agriculture and maintain needed resources for agriculture given the pressures of urban growth in the Treasure Valley.

Between June and December of 2011, the Urban Land Institute (ULI) Idaho District Council, in partnership with the University of Idaho, Boise State University, the Community Planning Association of Southwest Idaho (COMPASS), Idaho Center for Sustainable Agriculture, Treasure Valley Food Coalition and Idaho Smart Growth, studied the relationship between sustainable agriculture and land use. The research program was funded by a Community Action Grant from ULI Foundation, with in-kind and volunteer contributions from the partner entities. This brochure is a brief synopsis of the findings from that research.

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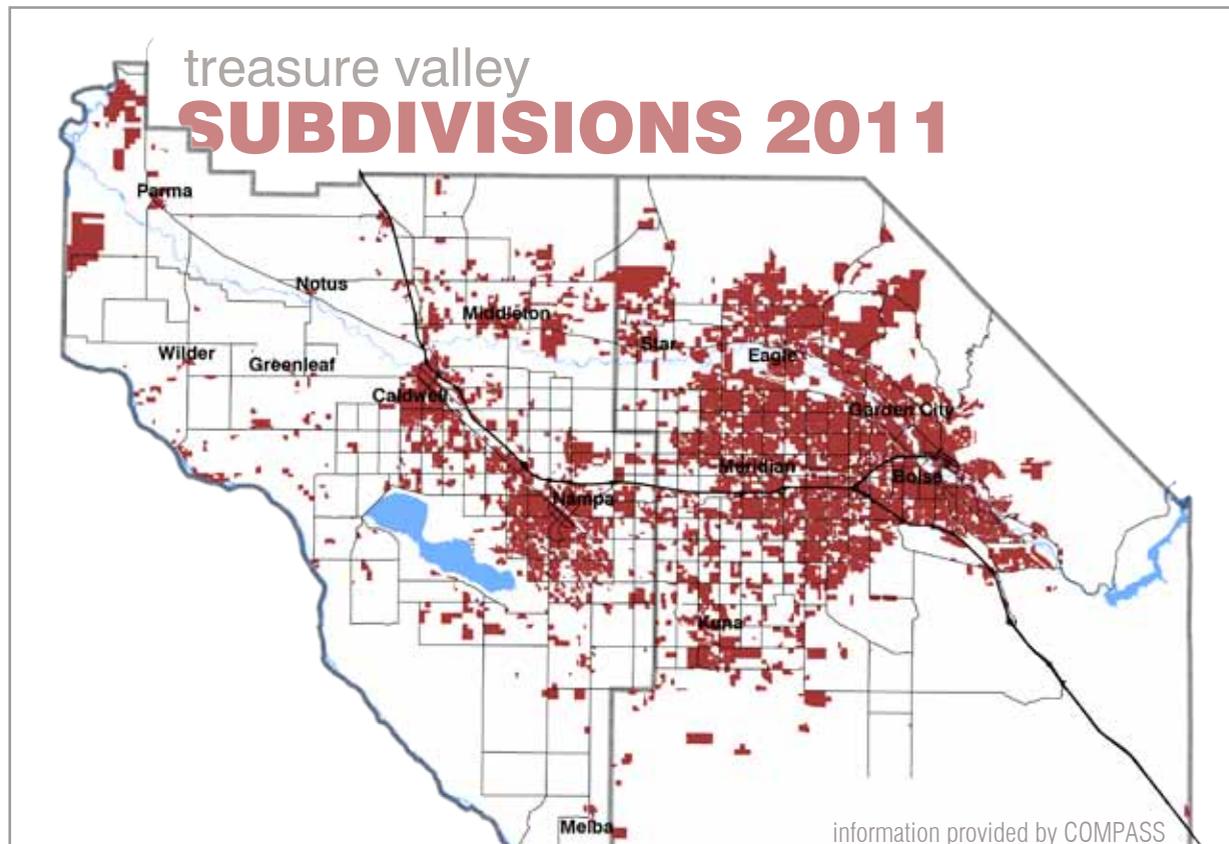
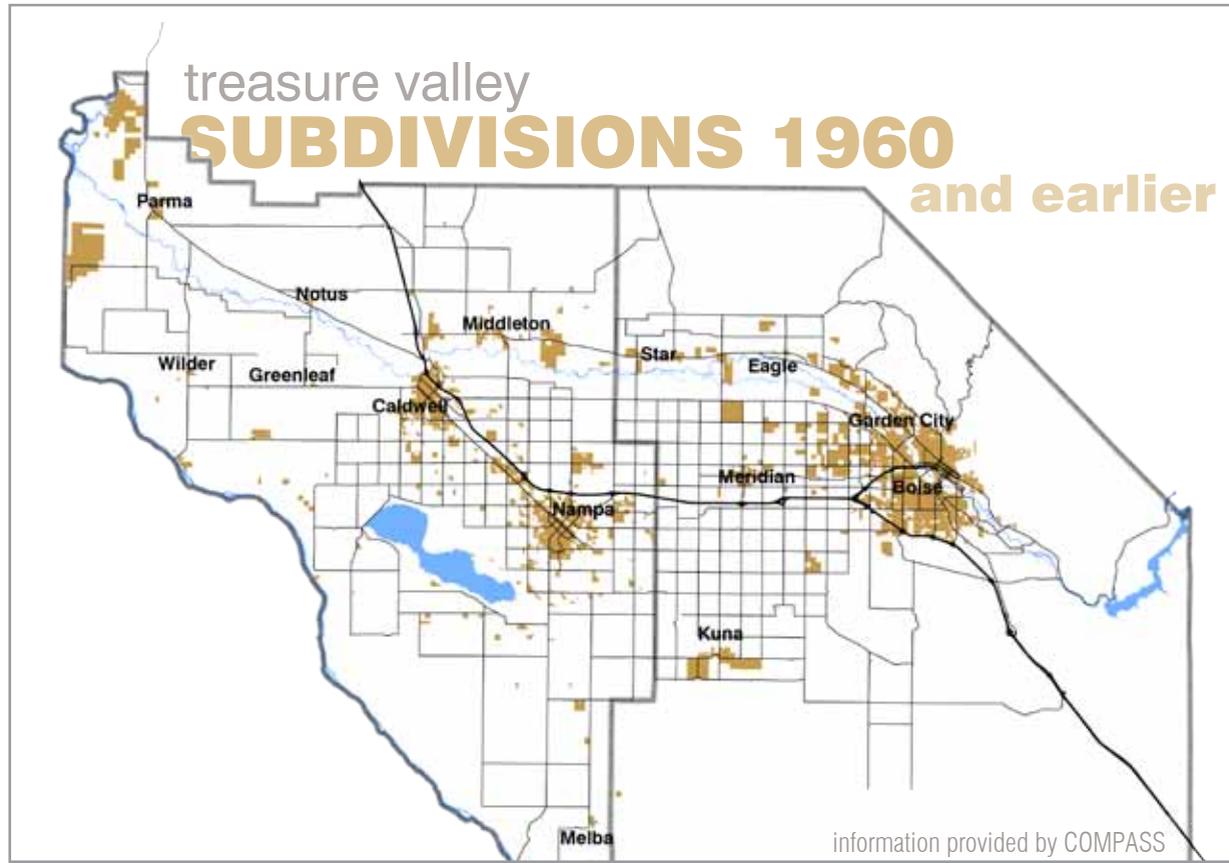
## What we Learned.

This research sought to identify the relationship between sustainable agriculture and land use in the Treasure Valley. Ultimately, we want to know how to maintain agricultural land by using better land use policies and practices which support sustainable communities. With this research, we intend to expand the dialogue about critical land use policy issues facing our nation, region and communities. We want to put in place a way to measure progress and success.

We learned that maintaining our local food supply and agricultural economy is complex. Agriculture is our heritage. It is a lifestyle choice, and a way to build community. Small and large-scale commercial agriculture is an important economic engine that generates jobs and livelihoods. Without a local source of food we cannot create sustainable, healthy or safe communities. Yet, from a land-use policy perspective, the essential values of local agriculture have been largely neglected.

Keep reading to learn what we found and consider [nine big ideas for the future.](#)





**idea 1** Agriculture is an important and valid land use.

Early and substantial public investment in an extensive system of dams, canals and wells in the Treasure Valley brought an abundant supply of water for agricultural production. This investment was imperative for the economic viability of the region. The region could not have grown without this investment.

**Over the past fifty years, the value of this public investment has been understated. The highest and best use of irrigated land has changed from agriculture to pavement, houses and commercial development.**

*During the real estate boom between 2002 and 2007, Ada County lost 14% of its farmland, and Canyon County 4% according to the USDA's Agricultural Census of 2007. Over the same period, Ada County's population increased 14% and Canyon County's 19%.*

**How has this happened?** From a land use policy perspective, agriculture is not viewed as a use. It is a blank space on a future land use map or identified in a "holding" zone. As one local Comprehensive Plan states, "The continuation of the existing agricultural uses is generally considered desirable to preserve the agricultural landscape and the local economy **until such time as development occurs.**" **Agriculture must take its seat at the land use planning table.**

It is time for a renewed perspective on agriculture. Agriculture is a land use of equal or greater value than housing development, commercial or industrial land uses. If we have no land for agriculture, we have no food. If we have no food, we have no long term sustainability. For flat and irrigated land, agriculture may well be the highest and best use.

**Good News:** The economic downturn over the past four years has halted the conversion of agricultural land use to development. The number of approved, but not final preliminary plats in the Treasure Valley (as estimated by COMPASS), shows that there is currently capacity within these entitled plats to absorb the future housing growth projections for the next seven to ten years **without losing any additional agricultural land use.** We **do not** need to convert more farmland for housing developments, but we **do** need to properly integrate agriculture into the planning process.

**Preliminary Plats in the Treasure Valley**

Total Number of Lots:	40421
Total Acres:	23056

## Sustainable local food is a key to sustainable cities.

Idaho is the sixteenth largest agricultural producer in the nation, and fifth in dairy products and vegetables. Canyon County is the fourth largest agricultural producer in the state and this large scale commercial business is crucial to the wellbeing of the Treasure Valley's economy. Yet most of the food produced is exported out of state. The food we consume is predominantly imported into the area.

**You may ask, "What is wrong with this picture? It's working now."**

Changing circumstances at a global scale make it prudent for all farmers to reassess the economic and environmental viability of their business. We know that rising oil prices negatively affect profitability. Richard Manning writes that our food system uses "ten calories of fossil energy for every calorie of food energy produced." Since so much of our food is imported, food security depends on stable climatic conditions and reliable, abundant energy sources. Can we rely on these in the future? The environmental challenges associated with 'big ag' are well known, but when combined with the poor health consequences of our overly-processed diet, the need for a fresh, local, and sustainable food supply is clear.

### Long term sustainability and food security for the region is hard to achieve through reliance on imported food supplies.

*"1 in 3 people born in 2000 will be diagnosed with diabetes." (National Diabetes Information Clearing House) \$399 Million is currently spent on treating diabetes in the Treasure Valley. (American Diabetes Association) Obesity and diabetes are at pandemic levels in Ada and Canyon County. Increased consumption of fresh fruits and vegetables and minimally processed foods are proven ways to combat these expensive diseases.*

The Valley's unique climate and soils make some current crops economically viable exclusively when exported and some foods cannot be produced locally or year round. Still, considering the outlook, large commercial agriculture might contemplate re-orienting their markets from primarily export to significantly local.

The University of Idaho looked at a "healthy dozen" group of twelve crop and livestock products that are produced, have been produced historically, or could be produced in the Treasure Valley 'food shed'. These products also provide a healthy, balanced diet on the USDA's new food plate, with an emphasis on fruits and vegetables. These are nutritious foods that can stem the unhealthy tide of obesity, diabetes and create more healthy communities.

**Good News:** Local is popular. Local and national food stores are selling and marketing more local products. Our research estimates that in 2011, two percent (2%) of the region's food purchases were for locally grown food and products. Enormous potential exists for this share to increase and improve the economic viability of local agriculture.

# The Treasure Valley Foodshed

## a 'healthy dozen'



food products that are produced, have been produced historically, or could be produced in the Treasure Valley contribute to a healthy, balanced diet on the USDA's food plate

adapted from USDA's food plate ratios; more information at [ChooseMyPlate.gov](http://ChooseMyPlate.gov)

## idea 3 Agriculture must be economically viable to be sustainable.

The income from farming has generally decreased over time and even those engaged in large-scale agriculture can't afford a mortgage on their land. The economic plight of small scale farming is well documented and is little better than a subsistence living.

### There are no federal subsidies for fresh vegetables.

Federal agriculture support programs reward **quantity** which encourages big specialized farms with mono-crop acreages, while discouraging crop diversity. Local and state support is oriented toward large scale agriculture. So, the economic and social value of small scale local farming to the community is generally overlooked.

**Good news:** Increasingly, food consumers want to know where their food was produced. This research included a survey of 7 farmers' markets in the Treasure Valley selling primarily food products from local sources. The survey indicated that 19,297 people attended the farmers market on the days surveyed in July 2011, and a total of \$4.9 million was spent. People are supporting local agriculture, often through Community Supported Agriculture (CSA) where consumers purchase a share from a local farmer and receive seasonal produce during the farming season.

*"Local is the cool new thing in the restaurant business:"*  
Dave Krick, owner of Bitter Creek and Red Feather restaurants.

Additionally, agri-tourism is on the rise and the region's wine industry is burgeoning. Agri-tourism brings in visitors and dollars from out of state. In response to the agri-tourism trend, the Idaho Department of Commerce has announced a statewide tourism promotion initiative beginning in 2013.

**Policy and priority changes are needed.** Local agriculture has the potential to become a more significant economic engine for the region, but it needs more attention from state and local economic development councils. Local agriculture provides jobs - green jobs. The current focus on exporting production is important, but marketing and promotion are needed for small producers too. Assistance is needed to create local storage and processing capacity, so that local producers can respond to demand over time, and increase overall production without fear of waste. Policy makers should consider local farm business incubators, training small farmers in marketing and promotion, and providing better workforce development. Small scale farmers need effective support systems and policies similar to efforts for large producers. Regulators should acknowledge that small scale operations have distinct needs that require some flexibility, especially when regulations serve as a barrier to entry or expansion, or deny access to consumers.

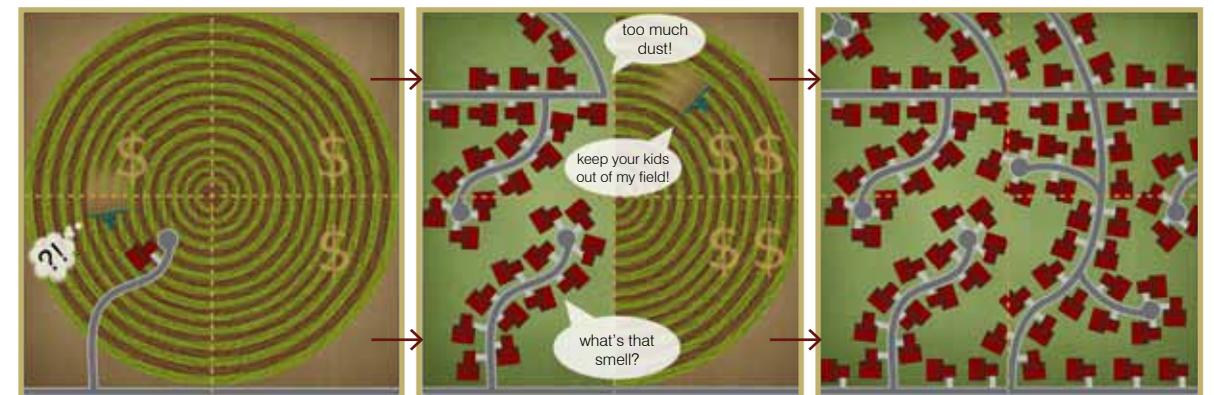
**"If Ada and Canyon County residents bought 15% of food each year locally. We could expect \$118 million in new income to farmers each year."** (Treasure Valley Food Coalition 2010) This translates to 1000 new jobs and \$13 million in labor income.

## idea 4 Using prime farm land for subdivisions has grave unintended consequences.

Haphazard planning has disastrous consequences for maintaining permanent agricultural land. Agriculture land conversion has been accelerated by land use decisions that create island residential developments surrounded by farmland.

'Right to Farm' regulations may set appropriate expectations for potential residents, or prevent agricultural nuisance lawsuits, but reliance on 'Right to Farm' regulations is not a proactive strategy to protect agricultural lands.

Property values of adjacent land rise, which encourages adjacent farmers to sell to developers. Eventually 'in-fill agricultural areas' result, nuisances increase to residents and farmers alike, and so more farmers sell out. Unfortunately, finding their asset has increased in value, once land is targeted for development, farmers are reluctant to reclaim the land for agricultural purposes. A 'cascade effect' results.



*Sustainability is about the long run: meeting the needs of present generations without diminishing opportunities for generations of the future. Economic value is inherently short-run in nature. In the absence of land use planning, economic incentives allocate parcels of land to their highest economic use. John Ikerd*

**idea 5** Most good building land is also prime agricultural land in the Valley.

Accessible water, reasonably flat terrain, and loose soils make good farm land. These traits are also attractive to developers. Currently, nothing prevents the encroachment and conversion of agricultural land to development. In many ways, the issue is **not if** we can avoid developing agricultural land, but rather **how we manage developing responsibly**.

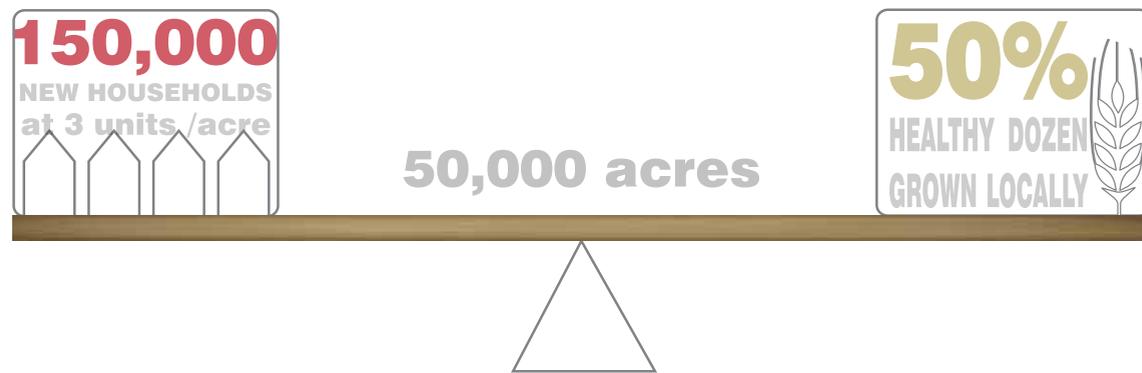
The organic components of land can be restored over time. However, the mineral elements of land are essentially a nonrenewable resource.

**Development is irreversible: this land cannot economically be returned to agricultural use.**

Effective planning which balances the short-term economic desires with the long term objectives of sustainability, including agriculture, requires public consensus. Without understanding of the issues and political support for land use decisions that result in a sustainable future, the short-term economic objectives will prevail.

Planners DO need agriculture interests to participate in the planning process. *“How will we plan for transportation and other infrastructure – or allocate resources wisely – if we don’t know what they (agricultural producers) are planning?”* a local planner

Almost everyone is concerned by the patterns and rate of land development that emerged in the last decade. None more than the agricultural producers – both large and small. But they feel excluded from the planning process. Farmers need land-use certainty to enable confident investment in their agriculture operations.

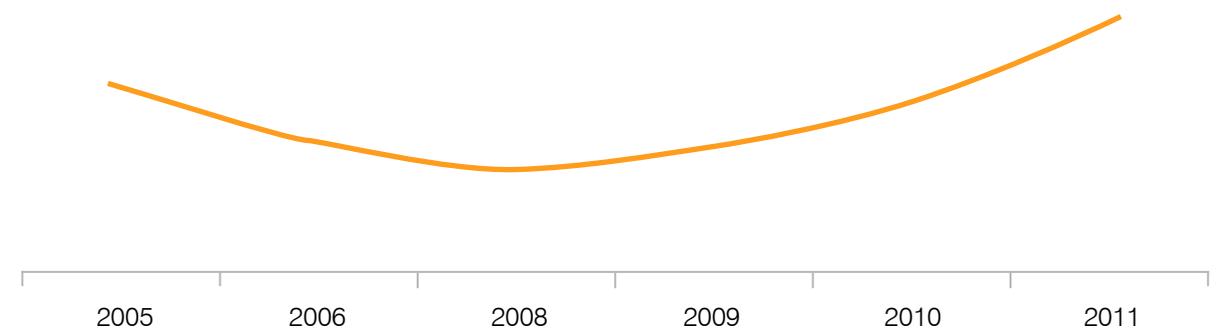


**50,000 acres can provide 150,000 new homes or grow 50% of the 2011 population’s food needs for a healthy diet.**

**idea 6** Resource uses need to be balanced to sustain agriculture and communities.

**We are not short of land for agriculture yet.** The amount of land currently used for agriculture has been difficult to determine. Our best guess is based on the county tax assessors and the amount of land receiving tax exemptions for agricultural use. In 2011, 465,000 acres received such exemption, including land used for dry land farming and grazing; land that has been platted and improved, where crops are being grown between streets; or land that is marginal for long term agricultural production. A better indicator may be land classified by the assessor as irrigated agricultural land. There is almost 196,000 acres in this category, representing 28% of all private land in Ada and Canyon Counties. While all 196,000 acres may not be viable agricultural land, it is currently the best data we have.

**Acres in agriculture tax exemptions**



**Over the next three or four decades, the conditions are ripe for this resource to disappear.** Water in the Treasure Valley continues to be abundant. Recent research by the University of Idaho suggests there is water supply to support a population of 8 million (excluding agriculture). COMPASS projects a population increase to 1.02 million people by 2040.

**That is additional development equivalent to two cities the size of Boise.**

To balance the needs for growth with the preservation of agriculture, public policy must be changed to recognize agricultural land as an irreplaceable resource. Priority must be placed on infill development prior to developing farmland. We know how to do this. A sizable body of research by the American Planning Association, Urban Land Institute and Smart Growth, among other organizations, explores ways to use land sparingly.

## idea 7 Imagine a different future.

The demographics of the valley are changing. Boise City is an example of what policy makers can expect: The 2010 Census shows 30% of the population aged 50 and over. This will increase to nearly 40% by 2025. Two-thirds of “baby boomers” and “empty nesters” live in two person households. As a result of these demographics, consumer preferences are changing. More people are looking for smaller, compact development with public services provided, and easy access to commercial and employment opportunities. The 28% of single-person households and increased interest in city living by “Generation X-ers and Y-ers” will add to the move toward greater density and less sprawl.

**Many market indicators suggest that the era of big houses on big lots in exurban locations is over. The old model of peripheral, large-lot development is not desired or affordable for the consumer. Nor is it an efficient use of taxpayer dollars for public agencies providing services.**

Developers suggest that future development is likely to happen first on platted sites adjacent to cities. In the economic downturn, the land which crashed the hardest in value was the isolated land away from services, often in the middle of farms.

**This is a great time to think ahead and plan wisely:** The real estate market is poised and the timing will soon be right for implementing smart growth principles to avoid sprawl into agricultural land. Remove the blank spaces and the holding zones on the future land use maps. Local communities now have a 2011 state mandate to address agriculture in their Comprehensive Plans. Agriculture and non-agriculture land-use can and should be planned. Communities already have the power to influence future development decisions through zoning and infrastructure investment.

## idea 8 ‘Agriculture’ has many faces.

Modern zoning pushed agriculture out of our towns and cities, but small-scale farming is taking root again in a number of innovative ways within our communities. It is not just about raising chickens, but bees, goats and a growing variety of fruits and vegetables. Increasingly, communities find that these agricultural activities do not involve the nuisances associated with large scale agriculture (e.g. pesticides, chemical fertilizers, noise, smells, etc.) Urban agriculture is compatible with urban settings.

Community gardens, demonstration gardens at schools, Community Supported Agriculture (CSA), home gardening for personal use and sale, farmers’ markets, food cooperatives, food processing and community kitchens are all expanding within urban borders. These activities meet local food needs, as well as promoting sustainability, economic development, education, health, and social interaction.

Farmers, too, are looking for close-in land to be near customers and reduce transportation costs. This project looked at the amount and viability of vacant land that could be used for urban farms. Unlike large scale agriculture, urban agriculture is adaptable to a variety of different spaces and locations – some within our neighborhoods.

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*“We are looking at acquiring some land closer in (to town) so that it isn’t as expensive to come in to (the farmers’) market ...rising transportation costs are a huge concern for us.” Ada County farmer*

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**Good News:** Communities are responding to this new future and updating their zoning codes to recognize that not all agriculture is an antithesis to urban living. For example, Boise City has a draft of proposed amendments to the zoning code that lessen restrictions on a number of urban agriculture activities.

**The Boise City Parks and Recreation Department has an online searchable inventory of city-owned land available for community gardens.**

The Capital City Public Market and the Idaho Center for Sustainable Agriculture are working to create a year round farmers market and center for local foods.

**idea 9** Planning for a sustainable future requires good data.

You can't plan for the future without a current baseline. In collecting data for this study we found that useful data sources about agricultural land either do not exist or need modification to be useful. A goal of the study is to develop a Score Card that provides the knowledge to enable policy makers to make good land use decisions. The card facilitates measurement of progress toward meeting goals for a sustainable future. It includes relevant indicators of agricultural sustainability, benchmarks today, and suggested targets for 2020. The chart below is a start based on what we know and with **suggested targets**. More resources and time are needed to collect relevant data and enable proper monitoring of this scorecard over time.

## Next Steps...

Are you intrigued? Would you like to learn more about the outcomes of our research? Could you help with implementing the findings of this research? If so, please contact us at 208 433 9352 or, visit the ULI website <http://idaho.uli.org/> to download a copy of Sustainable Agriculture: Measuring Success. ULI Idaho has an ongoing interest in linking sustainable agriculture to sustainable communities. As an outcome of this research, we intend to gather feedback from partners, public agencies and other stakeholders. We would like to support efforts at implementing the policy recommendations of this research and to help in further benchmarking research.

# The Score CARD

how success is measured



**Indicator:** *a measurement*  
(this list only includes the most necessary measures)



**Benchmark 2012:** *a starting point*  
(the existing indicator)



**Target by 2020:** *a quantifiable outcome to measure progress*

*Relevant Idea*

Relevant Idea	Indicator	Benchmark 2012	Target by 2020
idea 1	% of local grown food consumed locally	2%	20%
idea 3	Daily number of people attending farmers markets	19,297	25,000
idea 6	Agricultural land as a percentage of all private land	28%	28%
idea 6	Acres of farmland in use (using tax exemption data)	196,000	196,000
idea 1	Acres of farmland in healthy dozen crops	17,453	21,000 - 43,000
idea 3	Number of farms producing for local consumption	62	68
idea 3	Number and type of food and animal processing plants	21 (not all publicly accessible)	2 (public)
idea 5	Acres of land in agricultural easements	0	400
idea 5	Acres designated for agriculture on future land use maps	unknown	
idea 2	Acres of land zoned where agriculture is an allowed use	826,000	826,000
idea 3	Number of farmers markets	12	15
idea 3	Number of agri-tourism businesses	99	125
idea 7	Number of community gardens	19	35
idea 3	Number of CSA's	18	32
idea 3	Number of food councils	0	1
idea 3	Number of employees in agriculture	6,121	15,000



## ABOUT THE URBAN LAND INSTITUTE

The mission of the Urban Land Institute is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. ULI is committed to:

- Bringing together leaders from across the fields of real estate and land use policy to exchange best practices and serve community needs;
- Fostering collaboration within and beyond ULI's membership through mentoring, dialog, and problem solving;
- Exploring issues of urbanization, conservation, regeneration, land use, capital formation, and sustainable development;
- Advancing land use policies and design practices that respect the uniqueness of both built and natural environments;
- Sharing knowledge through education, applied research, publishing, and electronic media; and
- Sustaining a diverse global network of local practice and advisory efforts that address current and future challenges.

Established in 1936, the Institute today has nearly 30,000 members in over 90 countries, representing the entire spectrum of the land use and development disciplines. ULI relies heavily on the experience of its members. It is through member involvement and information resources that ULI has been able to set standards of excellence in development practice. The Institute has long been recognized as one of the world's most respected and widely quoted sources of objective information on urban planning, growth, and development.

## ABOUT ULI DISTRICT COUNCIL

**ULI Idaho** is a district council of the Urban Land Institute serving the mission of ULI throughout Idaho with a focus on the Treasure Valley region. ULI Idaho provides leadership on the responsible use of land and sustaining Idaho communities through:

- The research and educational resources of ULI;
- Technical advisory panels by local ULI members; and
- Mobilizing community members and key decision makers via informational and educational forums for projects with community wide impact.

Goals for the ULI Idaho District Council:

- Advise, educate, facilitate an understanding of local land use policy, plans and ordinances;
- Influence responsible use of land and projects of community-wide interest through thoughtful collective opinion and action;
- Foster educated and informed community leaders.

For more information see: <http://idaho.uli.org/>.

